APPENDIX A FEASIBLE AND REASONABLE WALLS FROM FEIS/ROD

Below is the summary table from the FEIS modified to show the change brought about by public comment and noted in the ROD. The red row in the table was a wall, Segment 4 SB2, found not to be reasonable and feasible in the FEIS, but reconsidered for the ROD and found to be reasonable and feasible, shown in green. The totals in the table have been recalculated to reflect the change.

Table 4-14 Noise Barrier Analysis (See Figures 4-5a to 4-5e)

	(80011	Length	Average		Don	Cost/
				a	Ben.	
	Location/Designation	(Feet)	Height	Cost	Receiv	Ben. Rec.
	Seg. 1 - 8 Mile to Meyers Avenue					
	Wall 0 – NB 1	2,117	10.5	\$994,630	31	\$32,085
	Wall 1 - SB 1	1,002	7.5	\$397,831	12	\$33,153
	Seg. 2 - Meyers Avenue to 9 Mile Road	-,,,,,		4077,400		700,000
	Wall 17 - NB Church - Church 10 dwellings ^a	403	10.0	\$184,074	11	\$30,679
	Wall 2 - NB 1	644	10.0	\$294,440	10	\$29,444
<u>~</u>	Wall SB2 – School counts as 10 dwellings	902	9.0	\$411,045	12	\$34,255
/al	Seg. 3 - 9 Mile to Woodward Heights Blvd.			, , , , , ,		, , , , , , , , , , , , , , , , , , , ,
 	Wall 3 - SB 1	594	8.0	\$243,598	8	\$30,450
pp	Seg. 4 - Woodward Heights Blvd. To I-696		0.0	Ψ2.0,000		φεσ, ιεσ
ons	Wall 4 - NB - Church counts as 10 dwellings ^a	669	10.0	\$306,052	12	\$30,605
eas	Seg. 5 - I-696 to Gardenia Avenue	007	10.0	Ψ300,032	12	φ30,003
Ž.	Wall 6 - Replacement Wall @ Braid	3,700	12.0	\$1,869,000	NAb	NA^b
and	Seg. 6 - Gardenia to North of 12 Mile Road	3,700	12.0	\$1,809,000	IVA	IVA
<u>le</u> 9	Wall 7 - SB1	598	13.0	\$316,898	14	\$22,636
Feasible and Reasonable Walls	Seg. 7 - North of 12 Mile Rd to 14 Mile Road	390	13.0	\$310,696	14	\$22,030
ea	Wall 8 - NB 1	658	12.0	\$332,325	12	\$27,694
	Wall 9 - NB 2	3,310	12.0	\$1,723,718	92	\$18,736
	Seg 8 - 14 Mile Road to Rochester Road	3,310	12.7	\$1,725,716	92	\$10,730
		1 222	10.0	¢550 422	17	¢22 009
	Wall 10 - SB 1 Seg. 9 - Rochester Road to Livernois Road	1,223	10.0	\$559,432	17	\$32,908
	Wall 11 - NB1	695	10.9	\$332,568	10	\$33,257
	Wall 12 - NB2	1,143	11.9	\$532,508 \$575,489	17	\$33,852
	Wall 13 - SB1	646	10.0	\$295,208	24	\$12,300
						\$12,300 \$15,221
	Wall 14 - SB2 Seg. 10 - Livernois Road to Wattles Road	2,381	13.1	\$1,263,340	83	\$13,221
		2.740	12.5	¢1 496 049	5.0	\$26.552
	Wall 15 - SB 1 Seg. 11 - Wattles Road to Coolidge Highway	2,749	13.5	\$1,486,948	56	\$26,553
	Wall 16 - SB1 & SB2	2.079	12.5	\$1,072,462	25	\$30,642
	Wall 18 - SB3	2,078		\$238,524	35	\$10,842
		472	12.0		22	
	Totals	25,984		\$12,897,582	478	\$26,982
	In 1 0251 25	1	I			
	Seg. 1 - 8 Mile to Meyers Avenue	4 000		4027.172	_	#40 ~ 4 9 4
<u>e</u>	SB 2	1,880	11.5	\$927,153	5	\$185,431
lab	Seg. 2 - Meyers Avenue to 9 Mile Road	600	0.0	#257 061	,	D < 4 4 < 5
SOL	NB 2	600	8.8	\$257,861	4	\$64,465
ea	SB 1	1,323	7	\$510,202	9	\$56,689
r F	Seg. 3 - 9 Mile to Woodward Heights Blvd.	4 000	40.5	A		* 4 < * 2 = *
<u>e</u> c	NB 1	1,333	12.7	\$693,555	15	\$46,237
Walls Not Feasible or Reasonable	Seg. 4 - Woodward Heights Blvd. To I-696	4 < 5	1.0	#270 0.00		
ea	SB 1	465	16	\$278,969	0	-
ot F	SB 2 -School counts as 10 dwellings	656	10.0	\$300,119	10	\$30,012
ĕ	Seg. 6 - Gardenia to North of 12 Mile Road					
ılls	NB 1	447	14.6	\$253,656	6	\$42,276
Mε	SB2	676	10	\$308,921	0	-
	Seg. 11 - Wattles Road to Coolidge Highway		4.5	A-86	_	***
	NB	1,596	10	\$729,658	7	\$104,237
	Square Lake Noise Wall Project ^c					

Source: The Corradino Group of Michigan, Inc.

^a These walls are considered reasonable as schools and churches are counted as 10 dwelling units, if there are also benefiting residences.

^b North of I-696 on the east side the planned ramp braiding will remove and replace existing walls.

^cNoise walls were completed in 2003 in the Square Lake Road area as a separate project. See Figure 5-1e.

APPENDIX B NOISE FIELD DATA MEASUREMENT SHEETS

HOIGE DAI	A OIIL	- - -				AM/PN	M	Site # 1
Job Number: 4207						Date:	5-30-1	4
Project: I-75 EIS						Day of We	ek	MTWTF
Instrumentation	Quest Noise	Quest NoisePro DLX, slow response, A-weighting, exchange rate = 3						
	Quest QC-1	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB Calibration Con				firmed		Yes/No
Location	n South side of Evelyn Ave. W of I-75, at I-75 service drive					Temp. 62 F Heavy Overcast/Light Overcast/		
Receptor Represents	Multiple sin	Multiple single family along service drive of I-75				Sunny / Clear Night/ Overcast Night		
Major Noise Source	I-75(southb	ound lanes closest to noise n	neter)			Humidity	,	70%
Secondary Source	I-75 service	I-75 service drive, hourly volumes 200 to 1200 depending on location				Pavemer	nt	Dry/ Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	C	pwind -1 to -5 alm -1 to +1
							D	ownwind +1 to +!

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	28 ft.	70/60	40
Secondary Road	2	15	NA		

Test 1 – 30 min.	From	9:48 A	То	10:03 A
Decibel Reading	66.4	4 L Aeq	8	0.0 L _{max}
Traffic Volumes	Major F	Road	Second	lary Road
Traffic volutiles	NB/EB	SB/WB	Off Ramp	Service Drive
Cars	Video	1049	176	16
Medium Trucks (3-axle)		32	6	0
Heavy Trucks		80	3	1
Buses		14	0	0
Motorcycles		13	1	0



		- ·				AM/PM	Site # 2
Job Number: 4207						Date: 5-30-1	14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	est NoisePro DLX, slow response, A-weighting, exchange rate = 3					
	Quest QC-1	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB Calibration Cor				nfirmed	Yes/No
Location	East Madge	East Madge Ave., south side, E of I-75, at I-75 service drive					70 F st/Light Overcast/
Receptor Represents	Multiple sing	Multiple single family on east side of I-75 in depressed section				Sunny / Clear Night/ Overcast Night	
Major Noise	I-75 (northb	ound lanes closest to noise r	neter)				
Source						Humidity	65%
Secondary Source	I-75 service	drive, hourly volume 130 to	800 depending o	n location			
j						Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
			•			vviilu	Calm –1 to +1
							Downwind +1 to +5

		# Lanes	Lane Width	Median	Posted	*Observed
				Width	Speed	Speed
Major Roa	nd	3 & 3	12	28 ft.	70/60	60
Secondar	y Road	2	15	NA	40	40

Test 1 – 15 min.	From	10:19 A	То	10:34 A
Decibel Reading	67.!	5 L Aeq	75	.8 L max
Traffic Volumes	Major F	Road	Secondary	Road
Traffic volutiles	NB/EB	SB/WB	NB/EB	SB/WB
Cars	855	video	20	
Medium Trucks (3-axle)	40		1	
Heavy Trucks	91		0	
Buses	1		0	
Motorcycles	17		0	



					AM/PM	Site # 3
					Date: 5-30-14	ļ
					Day of Week	MTWTF
Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3		11-18-02	
Quest QC-1	10/QC-20 Acoustic Calibrator	° @ 114 dB		Calibration Cor	firmed	Yes/No
South side (South side of Chestnut, E side of I-75, at the I-75 service drive (northbound lane)				60 F st/Light Overcast/	
Single Family				Sunny / Clear Night/ Overcast Night		
I-75 (northb	ound lanes closest to noise r	neter)			Humidity	70 %
Service driv	re				Pavement	Dry /Wet
A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
	Quest QC-1 South side of Single Fam I-75 (northby Service drive A-57dBA Serene	Quest QC-10/QC-20 Acoustic Calibrator South side of Chestnut, E side of I-75, at Single Family I-75 (northbound lanes closest to noise r Service drive A-57dBA Residential/Active Park/	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB South side of Chestnut, E side of I-75, at the I-75 service Single Family I-75 (northbound lanes closest to noise meter) Service drive A-57dBA	South side of Chestnut, E side of I-75, at the I-75 service drive (northbour Single Family I-75 (northbound lanes closest to noise meter) Service drive A-57dBA B&C-67dBA Residential/Active Park/ Motels/Rest./ Agric./Manuf./	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB Calibration Con South side of Chestnut, E side of I-75, at the I-75 service drive (northbound lane) Single Family I-75 (northbound lanes closest to noise meter) Service drive A-57dBA Residential/Active Park/ Motels/Rest./ Agric./Manuf./ Undevel. lands	Date: 5-30-14 Day of Week Quest NoisePro DLX, slow response, A-weighting, exchange rate = 3 Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB South side of Chestnut, E side of I-75, at the I-75 service drive (northbound lane) Temp. Heavy Overca: Sunny / Clear Sunny / Clear Sunny / Clear N 1-75 (northbound lanes closest to noise meter) Humidity Service drive A-57dBA Serene B&C-67dBA Residential/Active Park/ Motels/Rest./ Agric./Manut./ Undevel. lands

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	28 ft.	70/60	60
Secondary Road	2	12	NA	40	40

Test 1 – 15 min.	From	9:12 A	То	9:27 A
Decibel Reading	69.	8 L Aeq	80	.2 L max
Traffic Volumes	Major F	Road	Secondary	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	916	video	12	
Medium Trucks (3-axle)	29		1	
Heavy Trucks	96		0	
Buses	9		0	
Motorcycles	2		0	



						AM/PM	Site # 4
Job Number: 4207						Date: 5-30-14	1
Project: I-75 EIS	•					Day of Week	MTWTF
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	@ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	North side of Chestnut, W side of I-75, at the I-75 service drive (southbound lane)					65 F st/Light Overcast/	
Receptor Represents	Single famil	Single family dwellings				Sunny / Clear Night/ Overcast Night	
Major Noise Source	I-75 (southb	oound lanes closest to noise r	meter)			Humidity	70%
Secondary Source	Service driv	ve				Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	28 ft.	70/60	NB 70, SB 55
Secondary Road	2	12			35

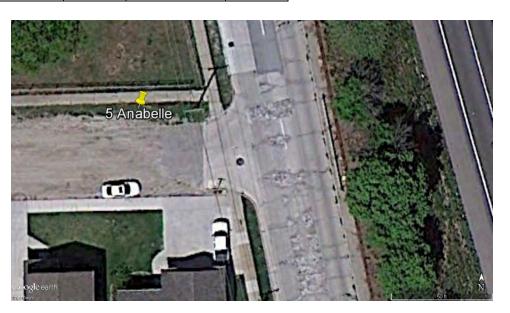
Test 1 – 15 min.	From	8:42 A	To 8	3:47 A
Decibel Reading	67.	7 L Aeq	79.	0 L max
Traffic Volumes	Major F	Road	Secondary F	Road
Trainc volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	1284		37
Medium Trucks (3-axle)		33		3
Heavy Trucks		60		1
Buses		1		0
Motorcycles		3		0



						AM/PM	Site # 5
Job Number: 4207						Date: 5-30-1	4
Project: I-75 EIS						Day of Week	MTWTF
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	0/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	North side of side)	of Annabelle Ave, W of I-75,	one lot back from	n I-75 service driv	ve (southbound		F st/Light Overcast/
Receptor Represents	Single famil	y residential, elementary sch	ool, park			•	r Night/ Overcast light
Major Noise Source	I-75 (southb	oound lanes closest to noise i	meter)			Humidity	80 %
Secondary Source	Service driv	re				Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	<u>B&C-67dBA</u> Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm –1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	28 ft.	70/65	NB 65, SB avg 45
Secondary Road	2	12	NA		35

Test 1 – 15 min.	From	8:13 A	To	8:28
Decibel Reading	68.4	4 L Aeq	75	5.8 L _{max}
Traffic Volumes	Major F	Road	Secondary	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	1431		43
Medium Trucks (3-axle)		29		2
Heavy Trucks		80		0
Buses		4		1
Motorcycles		3		0



						AM/PM	Site # 6
Job Number: 4207						Date: 5-30-1	4
Project: I-75 EIS	<u> </u>					Day of Week	MTWTF
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	0/QC-20 Acoustic Calibrator	@ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	South side (southbound	of Coy Ave, W of I-75, home d side)	frontages back f	rom I-75 service	drive		60 F st/Light Overcast/
Receptor Represents	Single famil	у				,	r Night/ Overcast light
Major Noise Source	I-75 (southb	oound lanes closest to noise r	meter)			Humidity	80%
Secondary Source	Service driv	e volume				Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
							Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	28 ft.	70/60	65
Secondary Road	2	12	NA	40	40

Test 1 – 15 min.	From 7:18 A		То	7:33 A
Decibel Reading	65.	9 L Aeq	7-	4.8 L max
Traffic Volumes	Major F	Road	Secondary	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	1607		51
Medium Trucks (3-axle)		25		1
Heavy Trucks		46		1
Buses		4		1
Motorcycles		3		1



						AM/PM	Site # 7
Job Number: 4207						Date: 5-29-14	1
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Nois	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-	10/QC-20 Acoustic Calibrato	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	North side (southboun	of Gardenia Ave, W of I-75, a d side)	at apartment setb	ack from I-75 se	rvice drive		70 F st/Light Overcast/
Receptor Represents	First floor R	Royal Oak Estates apts.				,	r Night/ Overcast light
Major Noise Source	I-75 (southl	bound lanes closest to noise	meter)			Humidity	55 %
Secondary Source	Southbound	d Stephenson Pkwy/southboo	und service drive			Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm –1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	28 ft.	70/60	NB 60, SB 30
Secondary Road	2	15	NA	40	25

Test 1 – 15 min.	From 6:09 P To 6:		6:24 P	
Decibel Reading	68.9	9 L Aeq	78	3.1 L max
Traffic Volumes	Major F	Road	Secondary	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	1392		190
Medium Trucks (3-axle)		26		1
Heavy Trucks		27		1
Buses		1		0
Motorcycles		2		3



						AM/PM	Site #8
Job Number: 4207						Date: 5-29-14	1
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Hamden Cı	ul-de-Sac North end, E of I-75	, near NB off ran	np to 12 Mile (no	rthbound side)		72 F st/Light Overcast/
Receptor Represents	Single famil	ly				•	r Night/ Overcast light
Major Noise Source	I-75 (south)	pound lanes closest to noise r	meter)			Humidity	55 %
Secondary Source	NB off ramp	o to 12 Mile				Pavement	Dry/ Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
							Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	28 ft.	70/65	60
Secondary Road	1	16	NA	40	

Test 1 – 15 min.	From	6:45 P	To	7:00 P
Decibel Reading	67.	5 L Aeq	7	5.6 L max
Traffic Volumes	Major F	Road	Secondary	/ Road
Traffic volutiles	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	video	181	
Medium Trucks (3-axle)			1	
Heavy Trucks			3	
Buses			1	
Motorcycles			4	



						AM/PM	Site # 9	
Job Number: 4207						Date: 5-29-14	1	
Project: I-75 EIS	•					Day of Week	M T W T	F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3				
	Quest QC-1	10/QC-20 Acoustic Calibrato	r @ 114 dB		Calibration Cor	nfirmed	Yes/N	ЛO
Location	Marie Lane	, W of I-75, N of 12 Mile Road	d			Temp.	70	F
Location						Heavy Overca		
Receptor	Mobile hom	ne park				,	r Night/ Overca	ast
Represents						IN	light	
Major Noise	I-75 (south)	bound lanes closest to noise	meter)					
Source						Humidity	5	55 %
Secondary Source	SB off ramp	to 12 mile Road						
•						Pavement	Dry /We	ŧ
Land Use Category	A-57dBA Serene	B&C-67dBA Residential/Active Park/	E-72dBA Motels/Rest./	F-NA Agric./Manuf./	G-NA Undevel, lands		Upwind -1 to -	-5
	Park	Hosp/Church/Section 4(f)	Offices/Devel.	Mainten./Retail	not yet permitted	Wind	Spa 1 to	J
						VVIIIU	Calm -1 to +1	
							Downwind +1	to +5

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	48 ft.	70/60	65
Secondary Road	1	15	NA	40	

Test 1 – 15 min.	From	5:37 P	To	5:52 P
Decibel Reading	73.9	L Aeq	81.7	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	785		
Medium Trucks (3-axle)		5		
Heavy Trucks		12		
Buses		1		
Motorcycles		1		



						AM/PM	Site # 10
Job Number: 4207						Date: 5-29-14	
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Lexington Apts private road, E of I-75, at apt setbacks (northbound side)					73 F st/Light Overcast/	
Receptor Represents	Lexington V	Lexington Village Apts				,	r Night/ Overcast light
Major Noise Source	I-75 (northb	oound lanes closest to noise r	neter)			Humidity	60 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm –1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	NB 65, SB 50
Secondary Road	NA				

Test 1 – 15 min.	From	4:58P	То	5:13 P
Decibel Reading	71.3	L Aeq	77.9	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	145192	video		
Medium Trucks (3-axle)	43			
Heavy Trucks	1			
Buses	1			
Motorcycles				



						AM/PM	Site # 13
Job Number: 4207						Date: 5-28-14	1
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	@ 114 dB		Calibration Cor	firmed	Yes/No
Location		Troy Villa Estates (mobile home park) setback of mobile home outside activity area from parcel adjacent to south					72 F st/Light Overcast/
Receptor Represents	Mobile Hom	Mobile Home park				,	r Night/ Overcast light
Major Noise Source	I-75 (southb	oound lanes closest to noise r	meter)			Humidity	60 %
Secondary Source	NA					Pavement	Dry/Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
							Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	40 variable
Secondary Road	NA				

Test 1 – 15 min.	From	4:21 P	То	4:36 P
Decibel Reading	69.8	L Aeq	75.2	L _{max}
Traffic Volumes	Major I	Road	Secondar	y Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	video	1224		
Medium Trucks (3-axle)		18		
Heavy Trucks		44		
Buses		1		
Motorcycles		2		



						AM/PM	Site # 14
Job Number: 4207						Date: 5-28-14	1
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	@ 114 dB		Calibration Cor	firmed	Yes/No
Location		Site 14 (west of Rochester Road, east of Liberty) 4th apartment's horseshoe from Rochester, at setback equivalent to nearest apartments to northbound I-75.					75 F st/Light Overcast/
Receptor Represents	54 first-floor	54 first-floor apartments + complex to west				,	r Night/ Overcast light
Major Noise Source	I-75 (northb	ound lanes closest to noise n	neter)			Humidity	50 %
Secondary Source	NA					Pavement	Dry/Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm –1 to +1 Downwind +1 to +5

		# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road		3 & 3	12	48 ft.	70/60	
Secondary F	Road	NA				

Test 1 – 15 min.	From	3:03 P	To	3:18 P
Decibel Reading	72.3	L Aeq	89.1	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	1069	video		
Medium Trucks (3-axle)	31			
Heavy Trucks	28			
Buses	1			
Motorcycles	5			



						AM/PM	Site # 15
Job Number: 4207						Date: 5-28-	14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Nois	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-	10/QC-20 Acoustic Calibrato	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location		age Park Apartment complex est of tennis courts at setback					71 F ast/Light Overcast/
Receptor Represents	50 first- and	d second-floor condos.				•	ar Night/ Overcast Night
Major Noise Source	I-75 (south	bound lanes closest to noise	meter)			Humidity	57 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
							Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	NB 65, SB 60
Secondary Road	NA				

Test 1 – 15 min.	From	3:25 P	То	3:40 P
Decibel Reading	73.3	L Aeq	85.4	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	1154	video		
Medium Trucks (3-axle)	14			
Heavy Trucks	30			
Buses	2			
Motorcycles	6			



						AM/PM	Site # 18A
Job Number: 4207						Date: 5-29-20)14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Meadowbro Meadowbro	ook and Scottsdale (Troy Mea ook	idows Subdivision	n) west sidewalk	of		61 F st/Light Overcast
Receptor Represents	Homes on N	Meadowbrook					r Night/ Overcast light
Major Noise Source	I-75 (Northb	oound lanes closest to noise i	meter)			Humidity	50
Secondary Source	Meadowbro	ook/NA				Pavement	Dry/ Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1
							Downwind +1 to

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	70
Secondary Road	NA				

Test 1 – 15 min.	From	10:40 A	To	10:55 A
Decibel Reading	54.9	^L Aeq	63.1	^L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	544	video		
Medium Trucks (3-axle)	25			
Heavy Trucks	49			
Buses	3			
Motorcycles	1			



						AM/PM	Site # 19
Job Number: 4207						Date: 5-29-20)14
Project: I-75 EIS	<u> </u>					Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	0/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Old Creek F	Rd. field behind condos					61 F st/Light Overcast/
Receptor Represents	Condos					,	r Night/ Overcast light
Major Noise Source	I-75 (southb	oound lanes closest to noise i	meter)			Humidity	50 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	<u>B&C-67dBA</u> Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm –1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	70
Secondary Road	NA				

Test 1 – 15 min.	From	10:08 A	To	10:23 A
Decibel Reading	69.6	^L Aeq	77.4	^L max
Traffic Volumes	Major F	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	569	video		
Medium Trucks (3-axle)	21			
Heavy Trucks	55			
Buses	1			
Motorcycles	3			



						AM/PM	Site # 20
Job Number: 4207						Date: 5-29-20)14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	0/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Three Oaks apartments	apartment complex at the N	W corner of I-75	and Wattles Rd.,	setback of		62 F st/Light Overcast/
Receptor Represents	Apartments					Sunny/ Clear Ni	ght/ Overcast Night
Major Noise Source	I-75 (southb	oound lanes closest to noise i	meter)			Humidity	50 %
Secondary Source	NA					Pavement	Dry/Wet
Land Use Category	A-57dBA Serene Park	<u>B&C-67dBA</u> Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
						VVIIIG	Calm -1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	48 ft.	70/60	70
Secondary Road	NA				

Test 1 – 15 min.	From	9:47 A	To	10:02 A
Decibel Reading	65.0	L Aeq	71.5	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	642	video		
Medium Trucks (3-axle)	26			
Heavy Trucks	56			
Buses	5			
Motorcycles	1			



						AM/PM	Site # 21
Job Number: 4207						Date: 5-29-20)14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	South of He	edgewood south cul-de-sac					F st/Light Overcast/
Receptor Represents	Homes beir	ng constructed 6/2014 on Hed	dgewood			Sunny/ Clear Ni	ght/ Overcast Night
Major Noise Source	I-75 (northb	oound lanes closest to noise r	meter)			Humidity	50 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm -1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	70
Secondary Road	NA				

Test 1 – 15 min.	From	9:18 A	To	9:33 A
Decibel Reading	66.0	L Aeq	80.9	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	683	video		
Medium Trucks (3-axle)	39			
Heavy Trucks	45			
Buses	2			
Motorcycles	1			



						AM/PM	Site # 24
Job Number: 4207						Date: 5-29-20	014
Project: I-75 EIS	<u> </u>					Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrato	r @ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	Justine Driv	re homes with backyards faci	ng Square Lake	Road and I-75			59 F st/Light Overcast/
Receptor Represents	Single-famil	ly dwellings.				Sunny/ Clear Ni	ight/ Overcast Nig
Major Noise Source	I-75 (northb	ound lanes closest to noise r	meter)			Humidity	50
Secondary Source	Square Lak	e Road				Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
						VVIIIG	Calm –1 to +1 Downwind +1 to +

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/65	NB 70, SB 55
Secondary Road	2	11		35	35

Test 1 – 15 min.	From	8:20 A	То	8:35 A
Decibel Reading	63.2	L Aeq	85.8	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	783	video	26	71
Medium Trucks (3-axle)	20		1	0
Heavy Trucks	48		1	2
Buses	1		0	0
Motorcycles	1		1	0



						AM/PM	Site # 25
Job Number: 4207						Date: 5-29-20)14
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Noise	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	° @ 114 dB		Calibration Con	ıfirmed	Yes/No
Location	Between Co condos	polidge Rd. and Crooks Rd. e	ast of Forest Vie	w Village subd. t	o rear of		58 F st/Light Overcast/
Receptor Represents	Single-famil	ly dwellings and condos				Sunny/ Clear Ni	ght/ Overcast Night
Major Noise Source	I-75 (southb	oound lanes closest to noise r	meter)			Humidity	50 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	48 ft.	70/6	NB 70, SB 55
Secondary Road	NA				

Test 1 – 15 min.	From	7:55 A	To	8:10 A
Decibel Reading	71.6	L Aeq	80.0	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Traffic volutiles	NB/EB	SB/WB	NB/EB	SB/WB
Cars	853	video		
Medium Trucks (3-axle)	23			
Heavy Trucks	33			
Buses	1			
Motorcycles	1			



						AM/PM	Site # 26
Job Number: 4207						Date: 5-29-2	014
Project: I-75 EIS						Day of Week	MTWTF
Instrumentation	Quest Noise	ePro DLX, slow response, A-v	weighting, excha	nge rate = 3			
	Quest QC-1	10/QC-20 Acoustic Calibrator	@ 114 dB		Calibration Cor	nfirmed	Yes/No
Location	West side o	of Andover Dr. at S side of Arl	und				56 F st/Light Overcast/
Receptor Represents	Single-fami	ly dwellings at various distand	ces from I-75.			Sunny/ Clear Ni	ight/ Overcast Night
Major Noise Source	I-75 (southb	oound lanes closest to noise r	meter)			Humidity	50 %
Secondary Source	Arlund Way	1				Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5 Calm -1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median Width	Posted Speed	*Observed Speed
Major Road	3 & 3	12	48 ft.	70/60	65
Secondary Road	2	11		35	35

Test 1 – 15 min.	From	7:26 A	To	7:41 A
Decibel Reading	67.4	L Aeq	88.6	L max
Traffic Volumes	Major I	Road	Secondary Road	
Traffic volutiles	NB/EB	SB/WB	Two-way	SB/WB
Cars	975	video	9	
Medium Trucks (3-axle)	25		1	
Heavy Trucks	41		2	
Buses	1		1	
Motorcycles	3		0	



						AM/PM	Site # 27
Job Number: 4207						Date: 5-28-2	014
Project: I-75 EIS						Day of Week	M T W T F
Instrumentation	Quest Nois	ePro DLX, slow response, A-	weighting, excha	nge rate = 3			
	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB Calibration Cor					firmed	Yes/No
Location	Timberview	Timberview Rd near mail boxes east of Meadowglen Court			Temp.	70 F	
Location							st/Light Overcast/
Receptor	Condominiu	Condominiums in Adams Woods				Sunny/ Clear Ni	ight/ Overcast Night
Represents							
Major Noise	I-75 (northb	oound lanes closest to noise r	neter)				
Source						Humidity	70 %
Secondary Source	NA						
-						Pavement	Dry /Wet
Land Use Category	A-57dBA	B&C-67dBA	E-72dBA	F-NA	G-NA		Handad 4 to E
	Serene Park	Residential/Active Park/ Hosp/Church/Section 4(f)	Motels/Rest./ Offices/Devel.	Agric./Manuf./ Mainten./Retail	Undevel. lands not yet permitted	VAC1	Upwind -1 to -5
	raik	11039/0114161/30011011 4(1)	Offices/Devel.	Wainten./Tetali	not yet permitted	Wind	Calm –1 to +1
							Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/60	70
Secondary Road	NA				

Test 1 – 15 min.	From	6:30 P	То	6:45 P
Decibel Reading		L Aeq		L max
Traffic Volumes	Major F	Road	Secondary F	Road
Trainc volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	836	video		
Medium Trucks (3-axle)	5			
Heavy Trucks	25			
Buses	1			
Motorcycles	1			



						AM/PM	Site # 27A
Job Number: 4207						Date: 5-28-1	4
Project: I-75 EIS						Day of Week	MTWTF
Instrumentation	strumentation						
	Quest QC-10/QC-20 Acoustic Calibrator @ 114 dB Calibration Con					nfirmed	Yes/No
Location	Timberview Rd where it curves away from I-75 and dips downhill. Driveway on north side				st/Light Overcast/		
Receptor Represents	Condominiu	Condominiums in Adams Woods Sunnyi Clear Nigl					ght/ Overcast Night
Major Noise Source	I-75 (northbound lanes closest to noise meter)					Humidity	70 %
Secondary Source	NA					Pavement	Dry /Wet
Land Use Category	A-57dBA Serene Park	B&C-67dBA Residential/Active Park/ Hosp/Church/Section 4(f)	E-72dBA Motels/Rest./ Offices/Devel.	F-NA Agric./Manuf./ Mainten./Retail	G-NA Undevel. lands not yet permitted	Wind	Upwind -1 to -5
							Calm -1 to +1 Downwind +1 to +5

	# Lanes	Lane Width	Median	Posted	*Observed
			Width	Speed	Speed
Major Road	3 & 3	12	48 ft.	70/65	70
Secondary Road	NA				

Test 1 – 15 min.	From	6:53 P	То	7:08 P
Decibel Reading	64.9	L Aeq	81.5	L max
Traffic Volumes	Major I	Road	Secondary F	Road
Trailic volumes	NB/EB	SB/WB	NB/EB	SB/WB
Cars	739	video		
Medium Trucks (3-axle)	10			
Heavy Trucks	11			
Buses	1			
Motorcycles	2			



APPENDIX C NOISE METER CALIBRATION CERTIFICATES

3M Oconomowac Personal Safety Division

3M Detection Solutions 1060 Corporate Center Drive Oconomowac, WI 53066-4828 www.3M.com/detection 262 567 9157 800 245 0779 262 567 4047 Fax

An ISO 9001 Registered Company

ASSET 0040223 Page 1 of 1



Certificate of Calibration

Certificate No: 5505186NXE030097

Submitted By:

ARGUS-HAZCO

46410 CONTINENTAL DR CHESTERFIELD, MI 48047

Serial Number:

NXE030097

Date Received: 4/21/2014

Customer ID:

Date Issued: 5/6/2014

Model:

NOISEPRO DLX DOSIMETER

Valid Until:

5/6/2015

Test Conditions:

Model Conditions:

Temperature:

18°C to 29°C

As Found:

IN TOLERANCE

Humidity:

20% to 80%

As Left:

IN TOLERANCE

Barometric Pressure: 890 mbar to 1050 mbar

SubAssemblies: Description:

Serial Number:

DOSIMETER MICROPHONE CABLE ASSEMBLY

N/A

Calibrated per Procedure:53V864

Reference Standard(s):

I.D. Number

Device

EF000099 ET0000556 QUEST-CAL

12/12/2013 12/12/2014

Last Calibration Date Calibration Due

B&K ENSEMBLE

5/10/2013

5/10/2014

Measurement Uncertainty:

+/ 2.2% ACOUSTIC (0.19DB)

Estimated at 95% Confidence Level (k=2)

Calibrated By:

5/6/2014

ROBERT WORKENTINE

Service Technician

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of 3M Detection Solutions.



Certificate of Compliance and Calibration

WATER CONTROL OF THE PROPERTY	Certificate Number	5/19/2014 - 1081	AND AND AN ACCUMULATION METHOD SETTING THE PROPERTY OF THE PRO
Make/Model	QC-10	Cal Date:	5/19/2014
Asset#	0040306	Next Cal Due:	5/19/2015
Serial Number	QE8100340		

Argus-Hazco does hereby certify that the above listed equipment is to be in physical, mechanical working order and within the manufacturer's acceptable limits. Each unit is tested and inspected in accordance with prescribed procedures before each rental.

This report may be reproduced in its entirety only with written approval of Argus-Hazco

Notes

Location Detroit, MI Asset Released In Tolerance ✓

Technician DS All Tests Passed

✓

Date 5/19/2014

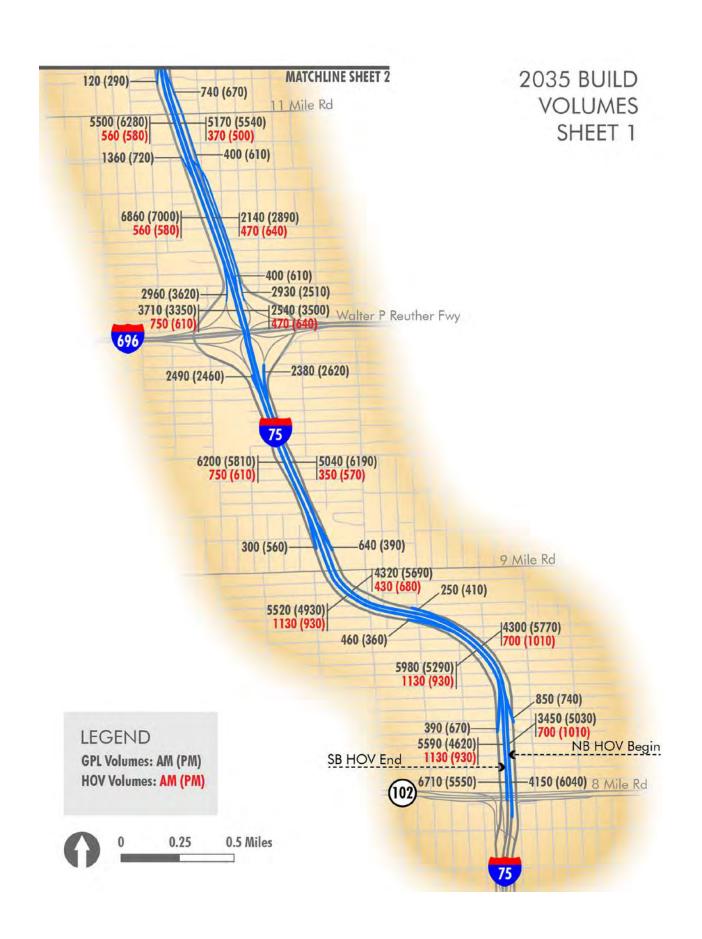
te 5/19/2014

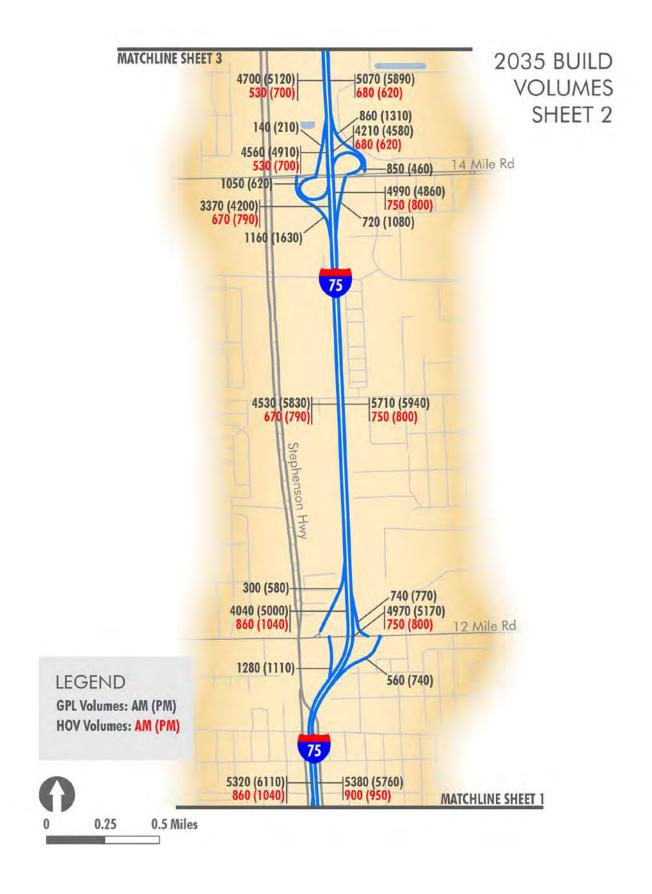
Time 9:44:46 AM *SOP#*

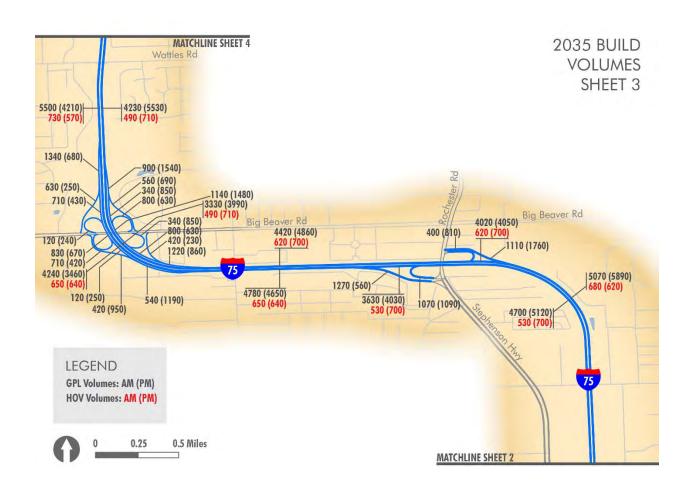
Quality Control: Date: 5/28//

Please Note: All tests performed with NIST Traceable test and measurement equipment at ambient room temperature, humidity, and pressure at the location listed above. Time in transit or any change in temperature, pressure, humidity, or elevation may result in changes to the calibration values listed. Performance of a field calibration is recommended prior to each use; refer to owner's manual for calibration procedures. Use of this test sheet constitutes proof that the testing environment was within manufacturers' limitation and the instrument conforms to manufacturers' specification.

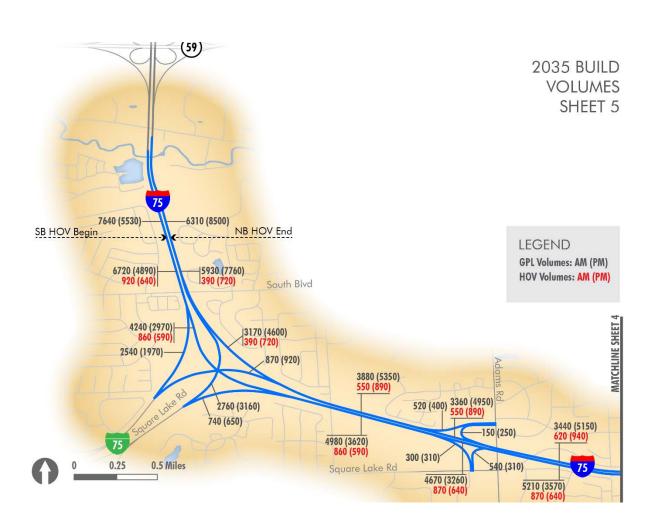
APPENDIX D 2035 TRAFFIC FORECASTS







2035 BUILD **VOLUMES** SHEET 4 Crooks Rd 3440 (5150) 620 (940) Square Lake Rd 710 (360)— 4640 (3280)— 0 (570) 5210 (3570) 870 (640) MATCHLINE SHEET 5 -440 (600) -3000 (4550) 620 (940) 1100 (750) 860 (930) Long Lake Rd 75 LEGEND 4230 (5530) 490 (710) 5500 (4210) 730 (570) GPL Volumes: AM (PM) **HOV Volumes: AM (PM)** 0.25 0.5 Miles **MATCHLINE SHEET 3**



APPEDNDIX E DWELLING UNIT EQUIVALENT CALCULATIONS

Appendix XX. Dwelling Unit Equivalent Calculation Tables.

Places of Worship

1 10003 01 110	7.0				
	Capacity	Average Persons Per Household	Usage		DUEs
Tabernacle of Praise	400	3	0.05	6.94	7
Landmark Community Church	1719	3	0.05	29.83	30
Serenity Christian Church	450	3	0.05	7.81	8
First Free Will Baptist Church	525	3	0.05	9.11	10
Tabernacle Baptist	788	3	0.05	13.67	14
First Baptist	350	3	0.05	6.07	7
New Beginning General Baptist	400	3	0.05	6.94	7

SQFT	SQFT Per Person	Capacity
3200	8	400
13,750	8	1719
3600	8	450
4200	8	525
6300	8	788
2800	8	350
3200	8	400

# of Daily Hours Used	Hours per Day	Days Used Per Year	Days per Year	Usage
4	24	114	365	0.05
4	24	114	365	0.05
4	24	114	365	0.05
4	24	114	365	0.05
4	24	114	365	0.05
4	24	114	365	0.05
4	24	114	365	0.05

(Capacity/Average Persons per Household) * Usage = DUEs SQFT/SQFT per Person = Capacity ((# of Daily Hours used/Hours per day) * (Days Used per Year/Days per Year)) = Usage

Schools

0010013					
	Enrollment	Average Persons Per Household	Usage		DUEs
Roosevelt Elementary	120	3	0.18	7.31	8
United Oaks Elementary	350	3	0.18	21.31	22
Hazel Park Junior High	710	3	0.18	43.23	44

# of Daily Hours Used	Hours per Day	Days Used Per Year	Days per Year	Usage
8	24	200	365	0.18
8	24	200	365	0.18
8	24	200	365	0.18

(Enrollment/Average Persons per Household) * Usage = DUEs

((# of Daily Hours used/Hours per day) * (Days Used per Year/Days per Year)) = Usage

Parks

	SQFT of Impact Area	SQFT of Typical Lot		DUEs
Huber Park	595,000	15,950	37.30	38
Firefighters Park	480,000	13,500	35.56	36

SQFT of Impact Area/SQFT of Typical Lot = DUEs

Heathers Golf Club

	Players Per Day	Average Persons Per Household	Usage		DUEs
Heathers Club	240	3	0.31	24.66	25

Players per Hour	Hours per Day	Players per Day
24	10	240

# of Daily	Hours	Days	Days	Usage
Hours	per	Used Per	per	
Used	Day	Year	Year	
10	24	270	365	0.31

(Players per Day/Average Persons per Household) * Usage = DUEs Players per Hour * Hours per Day = Players per Day

((# of Daily Hours used/Hours per day) * (Days Used per Year/Days per Year)) = Usage

APPENDIX F SOUND LEVEL RESULTS FOR ALL RECEIVERS PRIOR TO NOISE WALL ANALYSIS

VELS	
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s: sou	
RESULTS	

1-75 Noise Study

F75 Noise Study Segment 1 - PB Design		E De	VM 2.5 Pavement typinghway agencerent type with With Barrier Calculated LAeq1h	lwith TNM 2.5 Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA. With Barrier Type Calculated Noise Reduction Impact LAeq1h Calculated Goal		ta
#DUS Existing No Barrier -75 Noise Study	rease over culated 61.8 61.8 63.3 59.8	9	NM 2.5 pavement type highway agencerent type with With Barrier Calculated LAeq1h	be shall be used unled substantiates the napproval of FHWA Noise Reduction Calculated Goal		
#DUs Existing Hamilton Hami	rease over culated 61.8 63.3 59.8	P	www.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s	e shall be used unley substantiates the napproval of FHWA Noise Reduction Calculated Goal		#
#DUS Existing Mo Barrier	rease over culated 61.8 61.8 63.3 59.8	0 9	e pavement typhighway agencerent type with With Barrier Calculated LAeq1h	be shall be used unloy substantiates the napproval of FHWA Noise Reduction Calculated Goal		 1
#DUs Existing No Barrier #DUs Existing No Barrier LAeq1h LAeq1h Calculated Crit'n dBA dBA dBA dBA 1 0.0 61.8 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.3 66	rease over clulated 61.8 61.8 63.3 59.8	0 9	highway agencerent type with erent type with With Barrier Calculated LAeq1h	shall be used uni	il i trationio	
#DUs Existing No Barrier LAeq1h LAeq1h Calculated Crit'n dBA dBA dBA dBA dBA 1 0.0 61.8 66 1 0.0 63.3 66 1 0.0 59.8 66 1 0.0 59.9 66 1 0.0 55.9 66	rease over culated 61.8 61.8 63.3 59.8	0 9	with Barrier Calculated LAeq1h	n approval of FHWA Noise Reduction Calculated Goal	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
#DUs Existing No Barrier LAeq1h LAeq1h Calculated Critrn dBA GBA dBA dBA 1 0.0 61.8 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 72.4 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 63.3 66 1 0.0 63.9 66 1 0.0 59.9 66	rease over clulated 61.8 63.3 63.3 59.8	0 9	With Barrier Calculated LAeq1h	Noise Reduc Calculated	8 9	1 1 1 1 1 1 1 1 1
#DUs Existing No Barrier LAeq1h	rease over clusted 61.8 63.3 59.8	0 9	With Barrier Calculated LAeq1h	Noise Reduc	5 5	 1
LAeq1h LAeq1h Calculated Crith Calculated Crith Calculated Crith Calculated Crith Calculated Crith Calculated	culated 61.8 61.8 63.3 59.8	. 9	Calculated LAeq1h	ise Reduc	5	📆
Calculated Crift dBA dBA dBA 1 0.0 61.8 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 59.8 66 1 0.0 72.5 66 1 0.0 59.9 66 1 0.0 59.9 66 1 0.0 57.9 66	61.8 63.3 59.8	nc	LAeq1h	culated	5 5	*
dBA dBA dBA dBA 1 0.0 61.8 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 72.5 66 1 0.0 59.9 66	61.8 72.4 63.3 59.8	1 Inc 10 10 10 10 10 10 10 10 10 10 10 10 10	_			
dBA	61.8 72.4 63.3 59.8	10				
1 0.0 61.8 66 1 0.0 72.4 66 1 0.0 63.3 66 1 0.0 59.8 66 1 0.0 72.5 66 1 0.0 59.9 66 1 0.0 59.9 66 1 0.0 57.9 66	61.8 72.4 63.3 59.8	10	VBV			
1 0.0 59.8 1 0.0 72.5 1 0.0 59.8 1 0.0 72.5 1 0.0 59.9	72.4	2	QD 0		2	L
1 0.0 63.3 1 0.0 59.8 1 0.0 72.5 1 0.0 59.9	63.3	10 Snd I vI			>	0. 4
1 0.0 59.8 1 0.0 72.5 1 0.0 59.9	59.8				ις	-5.1
1 0.0 72.5 1 0.0 59.9 1 0.0 57.9		10	59.3		ι.C	4.5
1 0.0 59.9 1 0.0 57.9	72.5	10 Snd Lvl	/ 72.3		5	4.8
1 0.0 57.9	59.9	10	59.9	0.0	5	-5.0
	57.9	10	57.9	0.0	2	-5.0
1 0.0 72.8	72.8	10 Snd Lvi	A 71.8	1.0	2	4.0
1 0.0 64.7	64.7	10	63.3	1.4	2	-3.6
1 0.0 57.3	57.3	10	55.8	1.5	c)	-3.5
1 0.0 64.7	64.7	!			2	-3.4
1 0.0 72.0	72.0				5	-4.5
1 0.0 76.8	76.8	10 Snd Lvl	ا 70.2	6.6	S	1.6
1 0.0 64.3	64.3	10	59.5		2	-0.2
59.5	59.5	10	56.2	3.3	2	-1.7
1 0.0 65.1	65.1	10	58.3	9.9	2	1.8
1 0.0 65.7	65.7	10	60.7	7 5.0	co	0.0
1 0.0 67.3	67.3	10 Snd Lvl		9 6.4	r.	1.4
1 0.0 76.9	76.9	10 Snd Lvl		6.5	വ	1.5
1 0.0 71.7	7.17	10 Snd Lvl		8.5	5	3.5
1 0.0 69.2	69.2	10 Snd Lvl		3 8.6	-Ç2	3.6
1 0.0 66.7	66.7			9.7	ಸ	2.6
1 0.0 67.0	67.0	10 Snd Lvi	-	6.7	2	2.9
0.0 67.3 0.0 71.7 0.0 69.2 0.0 66.7 0.0 67.0	67.3 71.7 69.2 66.7 67.0	99999		Snd Lvl Snd Lvl Snd Lvl Snd Lvl Snd Lvl	Snd Lvl 60.9 Snd Lvl 70.4 Snd Lvl 60.6 Snd Lvl 59.1 Snd Lvl 59.1	Snd LvI 60.9 6.4 Snd LvI 70.4 6.5 Snd LvI 63.2 8.5 Snd LvI 60.6 8.6 Snd LvI 59.1 7.6 Snd LvI 59.1 7.9

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RESULTS: SOUND LEVELS						- 1	I-75 Noise Study	Study				
Receiver24	24	-	0.0	68.7	99	68.7	10	Snd LvI	9.09	8.1	3	3.1
Receiver25	25	_	0.0	72.0	99	72.0	10	i	63.0	0.6	22	4.0
Receiver26	26	1	0.0	72.2	99	72.2	10	Snd Lvl	63.7	8.5	2	3.5
Receiver27	27	_	0.0	67.0	99	67.0	10	L.	59.8	7.2	දා	2.2
Receiver28	28	1	0.0	66.4	99	66.4	10		59.1	7.3	2	2.3
Receiver29	29	-	0.0	74.2	99	74.2	10	Snd Lvl	64.8	9.4	-Cr	4.4
Receiver30	30	1	0.0	74.0	99	74.0	10		65.4	8.6	22	3.6
Receiver31	31	1	0.0	67.1	99	67.1	10	Snd Lvl	59.4	7.7	22	2.7
Receiver32	32	1	0.0	59.6	99	59.6	10		56.0	3.6	22	4.1-
Receiver33	33	-	0.0	59.1	99	59.1	10		55.8	3.3	လ	-1.7
Receiver34	34	_	0.0	61.7	99	61.7	10		57.2	4.5	co.	0.5
Receiver35	35		0.0	629	99	62.9	10		59.1	6.8	22	1.8
Receiver36	36	-	0.0	76.0	99	76.0	10	Snd Lvl	66.8	9.2	£C)	4.2
Receiver37	37	-	0.0	72.2	99	72.2	10	Snd Lvl	65.3	6.9	22	1.9
Receiver38	38	_	0.0	64.2	99	64.2	10		59.9	4.3	သ	-0.7
Receiver39	39	~	0.0	61.8	99	61.8	10		58.5	3.3	S	-1.7
Receiver40	40	_	0.0	59.4	99	59.4	10	1	55.7	3.7	5	-1.3
Receiver41	41	τ-	0.0	62.8	99	62.8	10	1.	57.7	5.1	5	0.1
Receiver42	42	·	0.0	71.2	99	71.2	10	Snd Lvl	63:4	7.8	2	2.8
Receiver43	43	_	0.0	69.5	99	69.5	10	Snd Lvl	64.0	5.5	2	0.5
Receiver44	4	_	0.0	65.1	99	65.1	10	-	8.09	4.3	2	-0.7
Receiver45	45	<u></u>	0.0	52.4	99	52.4	10		51.1	1.3	5	-3.7
Receiver46	46	<u>_</u>	0.0	55.1	99	55.1	10	1	53.6	1.5	5	-3.5
Receiver47	47	-	0.0	61.1	99	61.1	10		57.9	3.2	5	-1.8
Receiver48	48	-	0.0	63.1	99	63.1	10		8.09	2.3	5	-2.7
Receiver49	49	-	0.0	57.0	99	57.0	10	-	56.1	6.0	S.	4.1
Receiver50	20	-	0.0	55.0	99	55.0	10		53.0	2.0	S.	-3.0
Receiver51	51	-	0.0	64.4	99	64.4	10		60.5	3.9	2	1.1
Receiver52	25	_	0.0	63.1	99	63.1	10		63.0	0.1	2	4.9
Receiver53	23	-	0.0	. 64.0	99	64.0	10		63.1	6.0	2	4.1
Receiver54	54	-	0.0	62.1	99	62.1	10		8.09	1.3	လ	-3.7
Receiver55	55	. -	0.0	62.8	99	62.8	10		60.3	2.5	വ	-2.5
Receiver56	26	-	0.0	2.99	99	2.99	10	Snd Lví	63.1	3.6	2	4.
Receiver57	57	_	0.0	57.1	99	57.1	10		54.3	2.8	c)	-2.2
Receiver58	58	_	0.0	64.9	99	64.9	10	-	59.9	5.0	3	0.0
Receiver59	29		0.0	68.3	99	68.3	10	Snd Lvl	61.7	9.9	5	1.6
Receiver60	09	~	0.0	61.6	99	61.6	10	-	57.4	4.2	iC)	-0.8
Receiver61	61	_	0.0	68.1	99	68.1	10	Snd Lvi	61.1	7.0	S	2.0
Receiver62	62	-	0.0	61.5	99	61.5	10	-	56.2	5.3	9	0.3
Receiver63	63	_	0.0	69.3	99	69.3	10	Snd Lvl	62.4	6.9	2	1.9
Receiver64	64	_	0.0	61.1	99	61.1	10		55.5	5.6	ည	9.0
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RESULTS: SOUND LEVELS						1-75	I-75 Noise Study	Study				
Receiver65	65	1.0		53.8	99	53.8	10	mmeet	53.5	0.3	ည	4.7
Receiver66	99	1 0.		57.0	99	57.0	10		54.9	2.1	S	-2.9
Receiver67	29	1 0.		58.3	99	58.3	19		57.9	0.4	ഹ	4.6
Receiver68	89	1 0.0		74.4	99	74.4	9	Snd Lví	74.3	0.1	5	4.9
Receiver69	69	1 0.0		2.0	99	72.0	10	Snd Lví	72.0	0.0	ഹ	-5.0
Receiver70	20	1 0.		74.6	99	74.6	19	Snd Lvl	74.5	0.1	ည	4.9
Receiver71	7.1	1 0.0		66.2	99	66.2	9	Snd LvI	66.1	0.1	22	4.9
Receiver72	72	1 0.		74.0	99	74.0	\$	Snd Lvl	74.0	0.0	S.	-5.0
Receiver73	73	1 0.0		67.1	99	67.1	9	Snd LvI	0.79	0.1	ιΩ	4.9
Receiver74	74	1 0.0		58.8	99	58.8	10		58.7	0.1	5	4.9
Receiver75	75	1 0.0		70.2	99	70.2	9	Snd Lvl	70.2	0.0	5	-5.0
Receiver76	92	1 0.		63.3	99	63.3	10	*****	63.2	0.1	လ	4.9
Receiver77	2.2	1 0.0		63.8	99	63.8	19		63.8	0.0	S.	-5.0
Receiver78	78	1 0.		3.1	99	73.1	5	Snd LvI	73.1	0.0	£	-5.0
Receiver79	79	1 0.		18.7	99	68.7	2	Snd Lvl	68.7	0.0	5	-5.0
Receiver80	80	1 0.0		57.6	99	57.6	10		53.9	3.7	£C.	1.3
Receiver81	81	1 0.		6.2	99	56.2	5		55.3	6.0	2	4.4
Receiver82	82	1 0.		65.0	99	65.0	5	1	65.0	0.0	5	2.0
Receiver83	83	1 0.		74.9	99	74.9	10	Snd Lvl	74.9	0.0	ಬ	-5.0
Receiver84	84	1 0.		7.1	99	67.1	10	Snd Lvl	67.1	0.0	೮	-5.0
Receiver85	85	1 0.0		64.4	99	64.4	10		64.3	0.1	22	4.9
Receiver86	98	1 0.		73.4	99	73.4	10	Snd Lvl	73.4	0.0	5	-5.0
Receiver87	87	1 0.		62.1	99	62.1	5	***************************************	62.1	0.0	5	-5.0
Receiver88	88	1 0.		2.2	99	62.2	10		62.2	0.0	2	2.0
Receiver89	89	1 0.0		68.4	99	68.4	9	Snd LvI	68.4	0.0	5	÷.0
Receiver90	90	1 0.		63.6	99	63.6	10		63.6	0.0	5	-5.0
Receiver91	91	1 0.		59.4	99	59.4	9	1	59.4	0.0	5	-5.0
Receiver92	82	1 0.0		63.7	99	63.7	10		63.7	0.0	5	-5.0
Receiver93	93	1 0.0		67.4	99	67.4	5	Snd Lvl	67.4	0.0	5	-5.0
Receiver94	94	1 0.		62.4	99	62.4	5	ļ	62.3	0.1	5	4.9
Receiver95	95	1 0.0		62.6	99	62.6	10	-	62.6	0.0	rc.	-5.0
Receiver96	96	1 0.0		1.3	99	61.3	10		61.3	0.0	5	-5.0
Dwelling Units	# DUs	Noise	Reduction								-	
		Min	Avg	Мах								
		в	ф	dВ								
All Selected	96	5 -0.1		3.0	9.4					٠		
All Impacted	41			4.2	9.4							
All that meet NR Goal	28			7.2	9.4							

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RESULTS: SOUND LEVELS								I-75 Noise Study	ise St	tndy					
The Correction Groun								2000	1	7 700 -					
John Bitcher								ZZ Septe	rembe 5	22 September 2014 TNM 2 5	ě				
								Calcul	o ated w	Calculated with TNM 2.5	2.5			_	
RESULTS: SOUND LEVELS											ì			_	
PROJECT/CONTRACT:		I-75 Noise St	se Study												
RUN: Barrier design:		Seg2 - I INPUT	Seg2 - Meyers to John R - Walls INPUT HEIGHTS	John R	- Walls		,		á	/erade D	Average pavement type shall be used unless	e shall be u	sed unles	,	
SCIONING		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	70%	3					e i	State hig	a State highway agency substantiates the use	y substanti	ates the us		
Design -		00 00	7 % OC 1-1						5	a ullier	oi a unierent type with approval of FRWA	approval o	LUMA.		
Name	Q.	#DI Is	Existing	No Barrier	rrior						Mith Barrier				
		}	LAeq1h		ے		Increase over existing	rer existin		Type	Calculated	Noise Reduction	uction		
			•	Calculated		Criťn	Calculated	Crit'n		ಕ	LAeq1h	Calculated	Goal	Calculated	ated
								Sub'l Inc					-	minus Goal	
A CONTRACTOR OF THE CONTRACTOR			dBA	dBA	0	dBA	ф	ф			dBA	фВ	ф	₽ B	
First Free Will Baptist Church	3	0	0.0	C	74.9	99		74.9	10	Snd Lvl	67.3		7.6	5	2.6
Tabernacle Baptist	22	41	0.0	0	72.8	99		72.8	2	Snd Lvl	72.8		0.0	5	-5.0
Receiver25	25	1	0.0	0	71.0	99		71.0	9	Snd Lvl	65.8		5.2	c)	0.2
Receiver28	28	_	0.0	0	68.1	99		68.1		Snd LvI	63.0		5.1	2	0.1
Receiver29	29		0.0		72.1	99		72.1	10	Snd Lvi	64.5		7.6	2	2.6
Receiver30	30	_	0.0	0	75.8	99		75.8	10	Snd Lví	66.7		9.1	5	4.1
Receiver31	31	_	0.0	0	74.4	99		74.4	10	Snd Lvl	64.5		9.9	5	4.9
Receiver33	33	1	0.0	0	70.9	99		70.9	5	Snd Lvl	62.8		8.1	5	3.1
Receiver35	35	1	0.0	C	6.07	99		6.07	10 3	Snd Lvl	63.5		7.4	5	2.4
Receiver38	38	1	0.0	0	67.2	99	-	67.2	10 (Snd Lvl	61.9		5.3	2	0.3
Receiver54	54		0.0	0	69.1	99		69.1	10	Snd Lvl	65.0		4.1	ۍ.	-0.9
Receiver56	56	1	0.0)[6.79	66		67.9	01	Snd Lvl	59.7		8.2	2	3.2
Receiver58	58	1	0.0	0	62.9	99		62.9	10	-	59.0		6.9	2	19
Receiver60	09	1	0.0	0	65.6	99		65.6	10	1	59.9		5.7	rS.	0.7
United Oaks Elementary	73	21	0.0	0	56.0	99		56.0	10	1	51.0		5.0	5	0.0
Hazel Park Jr High	74	43	0.0	0	53.0	66		53.0	10	1	49.8		3.2	5	-1.8
Receiver76	76	1	0.0	0	67.8	66		67.8	10 \$	Snd Lvl	62.3		5.5	-Ç	0.5
Receiver78	78	1	0.0	0	69.1	99		69.1	10	Snd Lvl	63.7		5.4	5	4.0
Receiver79	79	1	0.0	0	70.7	99		7.07	0	Snd Lvl	64.3		6.4	2	4.1
Receiver81	~ 81	1	0.0)	66.3	99		66.3	10	Snd Lvl	61.5		80	5	-0.2
Receiver83	83	_	0.0		66.5	99		66.5		Snd Lvl	59.8		6.7	5	1.7
Receiver85	85	_	0.0		68.3	99		68.3		Snd Lvl	65.7	2.	9.	5	-2.4
Receiver86	98		0.0		63.6	99		63.6	10	1	61.1		5.	5	-2.5

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RESULTS: SOUND LEVELS						L-1	I-75 Noise Study	Study				
Receiver87	28	~	0.0	59.7	99	2.69	10	B-900-E	58.1	1.6	5	-3.4
Receiver88	88	-	0.0	69.3	99	69.3	10	Snd Lvl	65.1	4.2	2	-0.8
Receiver89	68	-	0.0	9.09	99	9.09	10		57.8	2.8	2	-2.2
Receiver90	06	-	0.0	57.2	99	57.2	10	Water Control of the	55.7	1.5	-CO	-3.5
Receiver91	91	-	0.0	72.6	99	72.6	10	Snd Lvi	64.5	8.1	2	3.1
Receiver92	92	-	0.0	62.9	99	62.9	10		59.3	9.9	S	1.6
Receiver93	93	~	0.0	62.6	99	62.6	10	1	56.6	0.9	LC)	1.0
Receiver94	94	-	0.0	59.3	99	59.3	10	Minima	54.8	4.5	S.	-0.5
Receiver95	96	~	0.0	57.8	99	57.8	10	Madrets	53.5	4.3	S.	-0.7
Receiver97	26	-	0.0	73.7	99	73.7	10	Snd Lvl	65.1	8.6	rC.	3.6
Receiver98	86	1	0.0	72.3	99	72.3	10	Snd Lvl	63.8	8.5	2	3.5
Receiver99	66	1	0.0	71.5	99	71.5	10	Snd LvI	62.4	9.1	2	4.1
Receiver100	100	-	0.0	70.0	99	70.07	10	Snd LvI	61.3	8.7	2	3.7
Receiver101	101	-	0.0	68.3	99	68.3	10	Snd Lvi	60.3	8.0	5	3.0
Receiver102	102	-	0.0	66.2	99	66.2	10	Snd Lvl	58.9	7.3	5	2.3
Receiver103	103	_	0.0	75.4	99	75.4	10	Snd Lvl	65.3	10.1	3	5.1
Receiver104	104	~	0.0	73.1	99	73.1	10	Snd Lvl	63.3	9.8	5	4.8
Receiver105	105	_	0.0	68.0	99	68.0	10	Snd Lvl	8.09	7.2	2	2.2
Receiver106	106	7	0.0	68.0	99	68.0	10	Snd Lvl	60.5	7.5	2	2.5
Receiver107	107	~	0.0	68.1	99	68.1	10	Snd LvI	60.5	9.7	30	2.6
Receiver108	108	_	0.0	67.4	99	67.4	10	Snd Lvl	59.6	7.8	5	2.8
Receiver109	109	_	0.0	66.1	99	66.1	10	Snd Lvl	58.8	7.3	ည	2.3
Receiver110	110	-	0.0	64.0	99	64.0	10	and the	57.8	6.2	ಸ	1.2
Receiver111	111	1	0.0	63.0	99	63.0	10		57.0	6.0	22	1.0
Receiver114	114	7	0.0	73.5	99	73.5	10	Snd Lvl	65.7	7.8	2	2.8
Receiver115	115	1	0.0	72.2	99	72.2	10	Snd Lvl	64.0	8.2	S.	3.2
Receiver116	116	-	0.0	71.2	99	71.2	10	Snd Lvl	63.9	7.3	S.	2.3
Receiver117	117	1	0.0	9.99	99	9.99	10	Snd Lvi	60.2	6.4	2	1.4
Receiver118	118	1	0.0	65.2	99	65.2	10		59.0	6.2	5	1.2
Receiver119	119	1	0.0	64.3	99	64.3	10		58.1	6.2	3	1.2
Receiver120	120	1	0.0	62.6	99	62.6	10	====	57.0	5.6	2	9.0
Receiver121	121	7	0.0	61.3	99	61.3	10		56.2	5.1	5	0.1
Receiver123	123	-	0.0	74.4	99	74.4	10	Snd LvI	68.2	6.2	22	1.2
Receiver124	124	1	0.0	71.0	99	71.0	10	Snd LvI	6.99	4.1	5	6.0
Receiver125	125	1	0.0	70.9	99	70.9	10	Snd Lvl	66.2	4.7	5	. O.3
Receiver126	126	-	0.0	68.4	99	68.4	10	Snd Lvl	63.7	4.7	ည	-0.3
Receiver127	127	₹	0.0	65.7	99	65.7	10	-	61.0	4.7	2	-0.3
Receiver128	128	1	0.0	62.0	99	62.0	10	-	57.7	4.3	5	-0.7
Receiver129	129	1	0.0	59.5	99	59.5	9	1	56.1	3.4	5	-16
Receiver130	130	-	0.0	58.2	99	58.2	10		54.2	4.0	5	-1.0
Receiver131	131	-	0.0	56.8	99	56.8	10	***************************************	54.2	2.6	5	-2.4
NTIGORITH MINITED INTERPRETATION OF THE	L	- T- 4	114 00 144									

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RESULTS: SOUND LEVELS						<u>-</u>	I-75 Noise Study	Study				
Receiver132	132	_	0.0	55.	2 66	55.5	10		54.0	1.5	5	-3.5
Receiver133	133	-	0.0	55.7		55.7	10		53.8	1.9	5	-3.1
Receiver134	134	1	0.0	56.7	99 /	56.7	10	1	54.1	2.6	5	-2.4
Receiver135	135	_	0.0	73.9			10	Snd LvI	6.99	7.0	5	2.0
Receiver136	136	-	0.0	71.9	99	71.9	10	Snd LvI	65.4	6.5	5	1.5
Receiver137	137	_	0.0	70.9	99	70.9	10	Snd LvI	64.7	6.2	5	1.2
Receiver138	138	-	0.0	70.0	99	70.0	10	Snd LvI	64.4	5.6	5	9.0
Receiver139	139	-	0.0	69.3	99	69.3	10	Snd Lvl	64.5	4.8	5	-0.2
Receiver140	140	-	0.0	68.3	99	68.3	10	Snd Lvl	62.9	5.4	S)	0.4
Receiver141	141	~	0.0	65.2			10		65.1	0.1	5	4.9
Receiver142	142	_	0.0	64.8	3 66	64.8	10	No. of Voter Ann	60.4	4.4	5	9.0-
Receiver143	143	~	0.0	65.			10		62.8	3.0	5	-2.0
Receiver144	144	-	0.0	65.5	5 66	65.5	10		61.9	3.6	22	4.1-
Receiver145	145	-	0.0	61.5			10	***************************************	57.2	4.3	2	-0.7
Receiver146	146	~	0.0	61.2		61.2	10		57.4	3.8	3	-1.2
Receiver147	147	1	0.0	60.2	99 7	60.2	10		56.3	3.9	rO.	1,
Receiver148	148	-	0.0	57.8		57.8	10		54.5	3.3	32	-1.7
Receiver149	149	_	0.0	59.0	99	29.0	10	W44-4-111	54.7	4.3	5	-0.7
Receiver150	150	_	0.0	58.0		58.0	10		54.0	4.0	5	-1.0
Receiver151	151	-	0.0	55.7	, 66	25.7	10		53.7	2.0	2	-3.0
Receiver152	152	~	0.0	57.1			10		53.7	3.4	5	-1.6
Receiver153	153	7	0.0	56.0	99	56.0	10	7	53.0	3.0	c)	-2.0
Dwelling Units	#	# DOS	Noise Red	Reduction								
	.	2	Min	Avg	Мах							
		ס	dB	ф	gp							
All Selected		169	0.0	5.4	10.1							
All Impacted		89	0.0	6.7	10.1							
All that meet NR Goal		77	5.0	7.0	10.1							

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The Corradino Group John Bucher							22 September 2014 TNM 2.5	mber	2014				_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:	I-75 Seg3	I-75 Noise Study Seg3 - 9 Mile to V INPUT HEIGHTS	tudy e to Wo	I-75 Noise Study Seg3 - 9 Mile to Woodward Hts - Walls INPUT HEIGHTS	s - Walls		Catculated with INM 2.5 Average pavel	ed with	TNM 2	i with IMM 2.5 Average påvement type shall be used unless	shall be u	sed unles		
ATMOSPHERICS:	P 89	68 deg F, 5(0% RH					a Sti of a	ate high differen	a State highway agency substantiates the use of a different type with approval of FHWA.	/ substanti approval o	ates the us f FHWA.	9	
Receiver						N-2-1-								
Name	sna# .c	Existing		No Barrier					5	With Barrier				
		LAeq1h		LAeq1h		Increase ov	Increase over existing	Type		Calculated	Noise Reduction	uction		
				Calculated	Crit'n	Calculated	Crit'n	Impact		LAeq1h	Calculated	Goal	Calc	Calculated
	7/0		-				Sub'l Inc						minus Goal	Sn =
		dBA		dBA	dBA	фB	дB		ਰ	dBA	дB	ф	쁑	
Receiver2	2	-	0.0	72.6		22 99	72.6	10 Sn	Snd Lvl	72.5		0.1	2	-4.9
Receiver3	3	7	0.0	74.3	99 66		74.3	10 Sn	Snd Lvl	67.6		6.7	2	1.7
Receiver4	4	1	0.0	68.0) 66		68.0	10 Sn	Snd LvI	64.2		3.8	rO.	-1.2
Receiver5	5	_	0.0	65.2				10		60.8		4.4	ۍ.	9.0-
Receiver6	9	-	0.0	74.5				10 Sn	Snd Lvl	67.2		7.3	2	2.3
Receiver7	7	-	0.0	69.5				10 Sn	Snd Lvl	63.5		6.0	2	1.0
Receiver8	00	7	0.0	67.8					Snd Lvl	61.1	9	6.7	ζ.	1.7
Receiver9	6	-	0.0	74.3	99				Snd Lvl	66.3	œ	8.0	2	3.0
Receiver10	10	-	0.0	67.9					Snd Lvl	60.7		7.2	ro	2.2
Receiver11	<u></u>	-	0.0	63.0						57.3		5.7	cs	0.7
Receiver12	12	-	0.0	73.3					Snd Lvl	65.5	7	7.8	ഹ	2.8
Receiver13	13	-	0.0	70.0					Snd Lvl	62.1	7	7.9	2	2.9
Keceiver14	14	τ	0.0	66.5				ļ	Snd Lvl	59.3		7.2	2	2.2
Receiver16	16	-	0.0	73.7				.	Snd LvI	0.99	7	7.7	2	2.7
Receiver17	17	-	0.0	68.0				10 Snc	Snd LvI	61.4	9	6.6	5	1.6
Receiver18	18	-	0.0	64.8				i	-	58.3	9	6.5	5	1.5
Receiver19	19	<u></u>	0.0	73.0					Snd Lvl	65.7	7	7.3	ಬ	2.3
Receiver20	20	-	0.0	0.69				10 Sno	Snd Lvl	62.3		6.7	5	1.7
Receiver21	21		0.0	9.99				10 Sno	Snd LvI	60.1	9	6.5	S	1.5
Receiver25	25	-	0.0	. 69.3					Snd Lvl	63.1	9	6.2	ည	1.2
Receiver26	26	-	0.0	62.2				- 1		57.3	4.	6.	5	-0.1
Receiver27	27	-	0.0	73.0	99			- 1	Snd Lvl	6.99	9	6.1	2	1.1
Receiver28	28	=	0.0	69.2			69.2	10 Snc	Snd Lvl	63.3	5.	6.	5	0.9

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RESULTS: SOUND LEVELS					<u>:</u>	I-75 Noise Study				
Receiver29	29	1 0.0	66.2		66 66.2	10 Snd Lvl	60.3	5.9	ಸ	0.9
Receiver30	30	1 0.0	70.2		66 70.2	10 Snd LvI	64.6	5.6	2	0.6
Receiver31	31	1 0.0	62.4		66 62.4	10	58.9	3.5	2	-1.5
Receiver33	33	1 0.0	66.5		66 66.5	10 Snd Lvl	66.1	0.4	3	4.6
Receiver34	34	1 0.0	63.0		66 63.0	10	62.8	0.2	2	4 8
Receiver35	35	1 0.0			66 68.1	10 Snd Lvl	67.0	1.1	5	-3.9
Receiver36	36	1 0.0	69.3		6.69.3	10 Snd Lvl	67.0	2.3	5	-2.7
Receiver38	38	1 0.0	65.0		66 65.0	10	59.7	5.3	2	0.3
Receiver40	40	1 0.0	65.5	5 66	65.5	10	59.6	5.9	2	0.9
Receiver41	41	8 0.0	75.6	99 98	5 75.6	10 Snd Lvl	67.4	8.2	5	3.2
Receiver42	42	1 0.0	64.2	2 66	64.2	10	59.5	4.7	5	-0.3
Receiver43	43	2 0.0	75.2	2 66	5 75.2	10 Snd Lvl	69.3	5.9	5	0.9
First Baptist Chuch	45	0.0	73.2	2 51	1 73.2	10 Snd Lvl	73.1	0.1	3	-4.9
Receiver50 2nd Floor,	50	2 0.0	78.6	99	3 78.6	10 Snd Lvl	72.5	6.1	5	1.1
Receiver51 2nd Floor	51	8 0.0	79.6	99	3 79.6	10 Snd Lvi	72.4	7.2	2	2.2
Dwelling Units	# DUs	Noise	Reduction							
		Min	Avg	Max	,					-
		dB	dB	dB	,					
All Selected	59	9 0.1	5.4	4 8.2	llo:					•
All Impacted	50	0.1	5.7	7 8.2	lc:					
All that meet NR Goal	43		6.7	7 8.2	\ <u>\</u>					

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The Corradino Group							22 September 2014	nber 2014					
John Bucher							TNM 2.5						
PESTII TS: SOLIND LEVELS							Calculated	Calculated with TNM 2.5	1 2.5				
PROJECT/CONTRACT:	I-75 N Sea4	I-75 Noise Study Sea4 - Woodwar	I-75 Noise Study Sea4 - Woodward Hts to I-696 - Walls	96 - Walls				. •					
BARRIER DESIGN:	INPU	INPUT HEIGHTS	S					Average	Average pavement type shall be used unless	e shall be us	ed unless		
ATMOSPHERICS:	68 dea F	6	HB %				•	a State hi	a State highway agency substantiates the use	y substantia	itiates the us	ω.	
Receiver									ent type with	approva	۲		
Name	No. #DUs	Existing	g No Barrier	J6					With Barrier				
		LAeq1h	LAeq1h		Incre	Increase over existing	existing	Type	Calculated	Noise Reduction	ction		
			Calculated	ed Crit'n	Calc	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	lated
							Sub'l Inc		,			minus	
		dBA	dBA	dBA	8		8B		dBA	ф	ф	Goal dB	
Receiver1	~	1	0.0	9.29	99	67.6	10	Snd Lvl	66.3	1.3		5	-3.7
Receiver2	2	-	0.0	2.69	99	69.7	10	Snd Lvl	65.2		2	2	9.5
Receiver3 (second row)	3	1	0.0	65.0	99	65.0	10	******	62.2	2.8	80	5	-2.2
Serenity Christian Church	4	8	0.0	73.4	99	73.4	10	Snd Lvl	65.5	7.9	6	2	2.9
Receiver5	5	1 (73.0	99	73.0	10	Snd Lvl	64.9	8.1	1	-Ç2	3.1
Receiver6	9	1			. 99	73.7	10	Snd Lvl	65.6	8.1	-	5	3.1
Receiver8					99	72.5	10	Snd Lvl	68.0	4.5	5	co.	-0.5
Landmark Community Church		29 (99	71.8	10	Snd Lvl	71.8		0	5	-5.0
Receiver12	12	-			99	66.7	10	Snd Lvl	64.4	2.3	3	2	-2.7
Receiver13	13	-	1000000 Hall		99	69.1	10	Snd Lvl	67.5	1.6	9	5	-3.4
Receiver14	4,	-			99	68.7	10	Snd Lvl	66.7	2.0	0	c)	-3.0
Receiver19	19	-	-		99	68.4	10	Snd Lvl	63.1		က	cs.	0.3
Receiver22	22	-	0.0		99	70.8	10	Snd Lvl	64.6	6.2	2	5	1.2
Receiver46	46	7			99	64.8	10	e e e e e e e e e e e e e e e e e e e	63.0		ω.	5	-3.2
Receiver47	47	-		64.2	99	64.2	10		62.5	1.7		5	-3.3
Receiver48	48	1			99	62.6	10		61.0	1.6	G	5	-3.4
Receiver56	- 56	1		64.5	99	64.5	10	***************************************	62.4	2.1		5	-2.9
Receiver57	22	1	0.0	65.8	99	65.8	10]	64.1	1.7		5	6.6
Receiver58	58	-	0.0	9 0.69	99	0.69	10	Snd Lvl	62.6	6.4		5	1.4
Receiver63	63	7			99	72.7	10	Snd Lvl	66.4			2	1.3
Receiver64	64	_	Anna Anna Anna Anna Anna Anna Anna Anna	62.4	99	62.4	10	-	2.73	4.7		-C2	-0.3
Receiver65	99		0.0		99	68.6	10	Snd Lvi	62.7	6.3		5	6.0
Receiver66	99	1		62.2	99	62.2	10	em yes har-sar	58.8	3.4		5	-1.6

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RESULTS: SOUND LEVELS		r			1	I-75 Noise Study	Study				
Receiver68 6	68	0.0	5 63.7	99 /	63.7	10	1	58.2	5.5	5	0.5
Receiver70 7	70 1	0.0	0 65.8	8 66	65.8	10	1411	0.09	5.8	2	0.8
Receiver71 7	71 1	0.0	0 68.7	2 66	68.7	10	Snd Lvl	63.4	5.3	ည	0.3
Receiver79 7	79 1	0.0	57.1	1 66	57.1	10		52.5	4.6	22	-0.4
Receiver80 8	80	0.0	0.09	99 0	0.09	10		54.6	5.4	Ω.	0.4
Receiver82	82 1	0.0	0 62.9	99	62.9	10	1	57.1	5.8	2	0.8
Receiver83	83	0.0	62.1	1 66	62.1	10		56.0	6.1	5	1.1
Receiver84	84	0.0	64.9	99 6	64.9	10		58.6	6.3	သ	1.3
Receiver85 8	85 1	0.0	0 63.2	2 66	63.2	10		57.8	5.4	വ	0.4
Receiver92	92	0.0	66.3	3 66	66.3	10	Snd Lvl	59.8	6.5	သ	1.5
Receiver93	93	0.0	64.8	99	64.8	10		59.6	5.2	5	0.2
Roosevelt Elementary	95 7	0.0	68.4	4 66	68.4	10	Snd Lvl	61.9	6.5	£,	1.5
Dwelling Units	# DNs	# DUs Noise Re	Reduction								
		Min	Avg	Max							
		g	号	ф							
All Selected	9/	0.0	4.5	5 8.1							
All Impacted	59	0.0	4.9	9 8.1	,						
All that meet NR Goal	32	5.2	6.2	8.1							

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The Corradino Group								22 September 2014	nber 2014					
John Bucher								TNM 2.5	TANK TANK	i.			_	
RESULTS: SOUND LEVELS					•			Calculate	Calculated With I NIN 4.3	c: 7			_	
PROJECT/CONTRACT:		I-75 Noise	ise											
RUN:		Segment 3	nt 3										•	
BARRIER DESIGN:		INPUT HEIGI	HEIGHTS						Average p	Average pavement type shall be used unless	e shall be u	sed unless	40	
ATMOSPHERICS:		68 deg F,	F, 50% RH						a State hig of a differ	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantia approval of	ites the us FHWA.	9	
Receiver											•			
Name	No.	#DUs	Existing	No Barrier						With Barrier				
			LAeq1h	LAeq1h		Ĕ	Increase over existing	existing	Type	Calculated	Noise Reduction	ıction	auro-mari	
				Calculated	Crith	రొ	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	ated
								Sub'l Inc					minus	
													Goal	
The state of the s			dBA	dBA	dBA	ВB		g B		dBA	dВ	8 B	в	
Receiver4	4	-	0.0		68.9	99	6.89	10	Snd Lvl	68.1	0.	80	5	4.2
Receiver5	33	1	0.0		65.0	99	65.0	10		63.4		1.6	5	-3.4
Receiver6	9	1	0.0		62.3	99	62.3	10	Marento.	6.09		4.1	5	-3.6
Receiver7	7	,	0.0			99	61.6	10		9.09		1.0	5	-4.0
Receiver12	12	-	0.0		74.6	99	74.6	10	Snd Lví	74.5		0.1	5	4 6
Receiver13	13	1	0.0		69.4	99	69.4	10	Snd Lvl	68.6		9.0	5	4.2
Receiver14	14		0.0			99	66.4	10	Snd Lvl	65.7		0.7	5	4.3
Receiver15	5	7	0.0			99	63.7	10	1	62.3		1.4	5	-3.6
Receiver16	16	1	0.0			99	62.8	10	1	61.4		1.4	5	-3.6
Receiver17	17	_	0.0			99	63.3	10		61.7		1.6	c)	-3.4 4.6
Receiver22	22	1	0.0		71.3	99	71.3	10	Snd Lvi	71.2		0.1	5	4.9
Receiver23	23		0.0			99	68.3	10	Snd Lví	68.2		0.1	ည	4 6
Receiver24	24		0.0			99	60.1	10		59.4		0.7	ري ري	4 ε
Receiver25	25		0.0			99	61.5	10	Macoo III	6.09		9.0	rC.	4.4
Receiver26	26	-	0.0			99	62.0	10	1	6.09		1.1	ري د	-3.9
Receiver27	27	1	0.0			99	62.6	10		61.5		1.1	5	ئ. 9.
Receiver32	32	1	0.0		73.2	99	73.2	10	Snd Lvl	73.1	0.1	1	5	4.9
Receiver33	33		0.0	29		99	9.79	10	Snd Lvl	67.5	0.1	_	5	4 0
Receiver34	8		0.0	62		99	62.6	10		62.4		0.2	5	4.
Receiver35	35	7-	0.0			99	60.7	10		60.2		0.5	2	-4.5
Receiver36	98	_	0.0			99	62.5	10	-	61.4		1.1	2	-3.9
Receiver37	37		0.0	62		99	62.4	10		61.4		1.0	2	4.0
Receiver38	38	_	0.0	62.1		99	62.1	10	******	61.1		1.0	5	4.0

RESULTS: SOUND LEVELS						7	I-75 Noise					
Receiver44	44	1	0.0	67.4	99	67.4	10	Snd Lvl	65.4	2.0	5	-3.0
Receiver45	45		0.0	64.5	99	64.5	10		61.0	3.5	5	-1.5
Receiver46	46	~-	0.0	62.9	99	62.9	10	1	0.09	2.9	5	-2.1
Receiver47	47	-	0.0	61.7	99	61.7	10		59.2	2.5	5	-2.5
Receiver48	48	_	0.0	61.9	99	61.9	10	3	60.0	1.9	2	-3.1
Receiver49	49	-	0:0	62.2	99	62.2	10		60.8	1.4	5	-3.6
Receiver50	20	-	0.0	62.5	99	62.5	10		61.3	1.2	5	-3.8
Receiver51	51	_	0.0	62.4	99	62.4	10		61.3	7	2	-3.9
Receiver52	52	-	0.0	72.9	99	72.9	10	Snd Lvl	71.2	1.7	5	-3.3
Receiver53	53	ζ	0.0	64.8	99	64.8	10		63.1	1.7	5	-3.3
Receiver54	25	-	0.0	63.1	99	63.1	10		61.4	1.7	22	-3.3
Receiver55	55	_	0.0	62.9	99	62.9	10		61.0	1.9	5	-3.1
Receiver56	56	-	0.0	62.5	99	62.5	10	-i	60.5	2.0	2	-3.0
Receiver57	25	_	0.0	62.3	99	62.3	10		60.5	1.8	5	-3.2
Receiver58	28	-	0.0	62.1	99	62.1	10		60.3	1.8	2	-3.2
Receiver59	29	-	0.0	62.0	99	62.0	10	THE BESTER FO	60.4	1.6	ഹ	-3.4
Receiver60	09	~	0.0	71.5	99	71.5	10	Snd Lvl	67.3	4.2	£	-0.8
Receiver61	61	1	0.0	65.5	99	65.5	10	1	62.2	3.3	2	-1.7
Receiver62	62	1	0.0	57.8	99	57.8	10	***************************************	56.4	4.1	2	-3.6
Receiver63	63	1	0.0	59.6	99	59.6	10		58.8	0.8	co	4.2
Receiver64	64	1	0:0	61.4	99	61.4	10		59.4	2.0	c)	-3.0
Receiver65	65	_	0.0	61.6	99	61.6	10		59.5	2.1	S.	-2.9
Receiver66	99	-	0.0	61.5	99	61.5	10		59.4	2.1	52	-2.9
Receiver67	29	+	0.0	61.4	99	61.4	10	Hermilan Ve-	59.4	2.0	C)	-3.0
Receiver69	69	_	0.0	71.3	99	71.3	10	Snd LvI	68.3	3.0	5	-2.0
Receiver70	70	-	0.0	56.7	99	56.7	10	-	55.1	1.6	2	-3.4
Receiver71	7.1	-	0.0	58.5	99	58.5	10		57.4	1.1	ις:	-3.9
Receiver72	72	1	0.0	58.3	99	58.3	10	1	57.5	0.8	22	4.2
Receiver73	73	~	0.0	59.1	99	59.1	10	Medial our set	58.5	9.0	ഹ	4.4
Receiver74	74		0.0	6.69	99	59.9	10	and the same of	58.8	1.1	2	-3.9
Receiver75	75	1	0.0	60.3	99	60.3	10	No 140 etc.	58.9	1.4	5	-3.6
Receiver76	76	7	0.0	60.4	99	60.4	10	-	58.8	1.6	5	-3.4
Receiver78	78	_	0.0	68.6	99	68.6	10	Snd Lvt	67.1	1.5	2	-3.5
Receiver79	79	_	0.0	26.7	99	56.7	10		55.7	1.0	5	4.0
Receiver80	80	~	0.0	56.9	99	56.9	10		56.3	9.0	5	4.4
Receiver81	81	7-1	0.0	58.3	99	58.3	10	-	57.3	1.0	2	4.0
Receiver82	82	_	0.0	59.5	99	59.5	10	}	58.1	1.4	5	-3.6
Receiver83	83	-	0.0	59.5	99	59.5	10		58.5	1.0	3	4.0
Receiver88	88	-	0.0	67.9	99	67.9	10	Snd Lví	65.4	2.5	2	-2.5
Receiver89	88	-	0.0	61.4	99	61.4	, 10		58.7	2.7	ഹ	-2.3
Receiver90	OG	_	0.0	61.8	99	61.8	10	B+464-44	29.7	2.1	ß	-2.9
INTERNATIONAL PROPERTY OF COLUMN TO SERVICE STATE STATE OF COLUMN TO SERVICE STATE OF COLUMN TO SERVIC		F41114		i								

I:\PROJECTS\4207\NOISE\TNM RUNS\TNM RE - EVALUATION\Seg5 Barrier on Fix

Receiver91	91	-	0.0	60.3	99	60.3	10		58.9	1.4	5	-3
Receiver92	92	-	0.0	59.8	99	59.8	10		58.8	1.0	5	-4.0
Receiver93	93	_	0.0	60.2	99	60.2	10		59.1	1.1	သ	-3.
Receiver94	94	_	0.0	60.3	99	60.3	10		59.1	1.2	5	-3.8
Receiver99	66	_	0.0	67.8	99	67.8	10	Snd Lvl	66.0	1.8	2	i q
Receiver100	100	~	0.0	63.2	99	63.2	10		62.0	1.2	5	-3.8
Receiver104	104	~	0.0	72.6	99	72.6	10	1	71.2	1.4	5	-3.6
Receiver105	105	-	0.0	72.4	99	72.4	10		71.1	1.3	2	-3.7
Receiver106	106	~	0.0	71.9	99	71.9	10		71.1	0.8	3	-4.2
Receiver107	107	7-	0.0	71.3	99	71.3	10		70.5	0.8	5	-4.2
Receiver108	108	1	0.0	70.6	99	70.6	10	ļ	6.69	0.7	5	-4.3
Receiver109	109	1	0.0	70.1	99	70.1	10		69.5	9.0	2	4.4
Receiver110	110	1	0.0	69.2	99	69.2	10	Snd Lví	68.7	0.5	9	-4.5
Receiver111	111	_	0.0	68.7	99	68.7	10	L	68.1	9.0	r.	4.4
Receiver112	112	-	0.0	9.79	99	67.6	9	Snd Lvl	67.0	9.0	ß	4.4
Receiver114	114	-	0.0	63.5	99	63.5	10	-	61.7	1.8	5	-3.2
Receiver115	115	—	0.0	63.2	99	63.2	10	10-10-10	61.4	1.8	2	-3.2
Receiver116	116	1	0.0	62.8	99	62.8	19		61.5	1.3	2	٩
Receiver117	117	1	0.0	61.2	99	61.2	10		0.09	1.2	2	-3.8
Receiver118	118	1	0.0	60.1	99	60.1	10		58.7	1.4	5	ľ
Receiver119	119	1	0.0	58.7	99	58.7	10		58.1	9.0	5	4.4
Receiver120	120	-	0.0	58.9	99	58.9	10		58.5	0.4	c)	4.6
Receiver121	121	-	0.0	59.0	99	59.0	10		58.4	9.0	5	4.4
Receiver122	122	Aura	0.0	59.1	99	59.1	10	hanner	58.3	0.8	2	-4.2
Receiver123	123	1	0.0	59.3	99	59.3	10		58.4	0.9	2	4.1
Receiver124	124	1	0.0	26.2	99	59.7	10		58.6	1.1	5	-3.9
Receiver125	125	_	0.0	75.6	99	75.6	10		74.1	1.5	9	Y.
Receiver126	126	-	0.0	74.6	99	74.6	10		73.0	1.6	သ	-3.4
Receiver127	127	-	0.0	74.3	99	74.3	10		72.2	2.1	5	?-
Receiver128	128	-	0.0	73.9	99	73.9	10		71.2	2.7	S	13
Receiver129	129	-	0.0	73.5	99	73.5	10	Snd Lvl	70.0	3.5	2	7
Receiver131	131	-	0.0	62.9	99	62.9	10		65.2	2.0	လ	-4.3
Receiver132	132	_	0.0	65.0	99	65.0	10		64.2	9.0	2	-4.2
Receiver133	133	-	0.0	64.0	99	64.0	10	*********	63.0	1.0	2	7
Receiver134	134	_	0.0	64.1	99	64.1	10		62.7	1.4	വ	-3.6
Receiver135	135	-	0.0	65.5	99	65.5	10		62.7	2.8	ഹ	-2.2
Receiver136	136	-	0.0	66.5	99	66.5	10	Snd Lvl	65.8	0.7	-C2	-4.3
Receiver138	138		0.0	70.3	99	70.3	10		6.99	3.4	5	-1.6
Receiver139	139	-	0.0	68.1	99	68.1	10		63.9	4.2	ıc.	-0.8
Receiver140	140	_	0.0	68.5	99	68.5	10	1	63.5	5.0	ĸ	0.0
Receiver:41	144	_	0.0	73.1	99	73.1	10	Snd Lvi	67.0	w 7	ĸ	_

RESULTS: SOUND LEVELS							I-75 Noise					
Receiver142	142	Ţ	0.0	72.4	99	72.4	10 Sn	Snd Lvl	66.1	6.3	S	1.3
Receiver143	143	-	0.0	64.8	99	64.8	10	****	60.1	4.7	2	-0.3
Receiver144	144	_	0.0	62.9	99	62.9	10		61.0	4.9	5	0.1
Receiver145	145	7	0.0	8.99	99	8.99	10 Sno	Snd Lvl	61.7	5.1	5	0.1
Receiver146	146	_	0.0	0.99	99	99		Snd Lvl	61.2	4.8	2	-0.2
Receiver147	147	-	0.0	67.5	99	67.5	10 Sno	Snd Lvl	62.3	5.2	Ω.	0.2
Receiver150	150	1	0.0	62.6	99	62.6	10		61.4	1.2	2	-3.8
Receiver151	151	_	0.0	61.6	99	61.6	10		0.09	1.6	5	-3.4
Receiver152	152	_	0.0	61.4	99	61.4	10		59.4	2.0	2	-3.0
Receiver153	153	-	0.0	63.0	99	63.0	10	_	59.6	3.4	5	1.6
Receiver154	154	_	0.0	0.0	99	0.0		invalid	0.0	0.0	22	0.0
Receiver155	155	-	0.0	63.7	99	63.7	10	1	60.1	3.6	5	4.1-
Receiver156	156	-	0.0	64.3	99	64.3	10		60.3	4.0	သ	-1.0
Receiver157	157	-	0.0	0.0	99	0.0	ļ	invalid	0.0	0.0	5	0.0
Receiver 158	158	V-	0.0	65.1	99	65.1		[60.7	4.4	2	-0.6
Receiver160	160	-	0.0	77.8	99	77.8		Snd LvI	71.6	6.2	5	1.2
Receiver161	161	-	0.0	77.2	99	77.2		Snd Lvl	70.8	6.4	5	1.4
Receiver162	162	-	0.0	76.5	99	76.5	l .	Snd Lvl	70.0	6.5	£C)	1.5
Receiver163	163	-	0.0	72.4	99	72.4		Snd Lvi	65.4	7.0	S	2.0
Receiver164	164	_	0.0	74.8	99	74.8		I LVI	67.5	7.3	5	2.3
Receiver165	165	-	0.0	73.9	99	73.9	10 Snc	Snd Lvl	65.7	8.2	5	3.2
Receiver167	167	1	0.0	79.9	51	79.9		I LvI	75.3	4.6	5	6 .4
Receiver169	169	-	0.0	78.7	51	78.7		I LVI	74.1	4.6	5	0.4
Receiver170	170	1	0.0	76.7	5	7.97		Snd Lvl	71.1	5.6	2	9.0
Receiver171	171	-	0.0	77.4	51	77.4	10 Snc	Snd Lvl	71.7	5.7	5	0.7
Receiver172	172	1	0.0	77.9	51	6.77		I LvI	72.2	5.7	5	0.7
Receiver173	173	-	0.0	76.3	51	76.3	10 Snc	Snd LvI	70.2	6.1	c)	1.1
Receiver176	176	-	0.0	74.7	99	7.4.7		Snd Lvi	62.9	11.8	5	8.9
Receiver177	177	-	0.0	72.2	99	72.2	10 Snc	Snd Lvl	62.6	9.6	5	4.6
Receiver178	178	1	0.0	68.4	99	68.4		Snd Lvl	62.0	6.4	5	1.4
Receiver179	179	T-	0.0	68.9	99	68.9		I LvI	62.1	6.8	5	1.8
Receiver180	180	- -	0.0	69.9	99	6.69	10 Snc	Snd Lvl	62.5	7.4	5	2.4
Receiver181	181	-	0.0	70.8	99	70.8		Snd Lvl	63.0	7.8	2	2.8
Receiver182	182	-	0.0	71.6	99	71.6		I LvI	63.4	8.2	5	3.2
Receiver183	183	-	0.0	66.4	99	66.4	1	Snd LvI	61.5	4.9	5	6
Receiver184	184	-	0.0	62.9	99	629	10		61.1	4.8	5	-0.2
Receiver185	185	_	0.0	0.0	99	0.0		invalid	0.0	0.0	5	0.0
Receiver186	186	1	0.0	64.4	99	64.4	10	1	60.1	4.3	5	-0.7
Receiver187	187	1	0.0	65.0	99	65.0		***************************************	60.5	4.5	5	-0.5
Receiver188	188	₩.	0.0	63.9	99	63.9	10		59.9	4.0	3	1.0
Receiver189	189		0.0	64.2	99	64.2	10		59.2	5.0	22	0.0
SAINT (SINI IC MINITESTON (2007)	וא סב ביייו	TACITAL I		rior on Eiv								

INPROJECTS/4207/NOISE/TNM RUNS/TNM RE - EVALUATION/Seg5 Barrier on Fix

RESULTS: SOUND LEVELS						<i>-</i> 1	I-75 Noise					
Receiver190	190	_	0.0	68.7	99	68.7	10	Snd Lvl	60.3	8.4	3	3.4
Receiver191	191	7 —	0.0	68.1	99	68.1	10	Snd Lvl	59.6	8.5	5	3.5
Receiver192	192	-	0.0	64.3	. 99	64.3	10		59.0	5.3	22	0.3
Receiver193	193	-	0.0	64.7	99	64.7	10		58.5	6.2	2	1.2
Receiver194	194	_	0.0	64.9	99	64.9	10		58.5	6.4	2	4.1
Receiver195	195	-	0.0	64.1	99	64.1	10		58.6	5.5	2	0.5
Receiver196	196	-	0.0	63.4	99	63.4	10		58.6	4.8	5	-0.2
Receiver197	197	-	0.0	62.3	99	62.3	10		58.7	3.6	2	4.1-
Receiver198	198	τ-	0.0	61.6	99	61.6	10		58.7	2.9	2	-2.1
Receiver199	199	-	0.0	71.6	99	71.6	10	Snd Lvl	62.7	8.9	Q.	3.9
Receiver200	200	-	0.0	72.4	99	72.4	10	Snd Lvl	63.1	9.3	22	4.3
Receiver201	201	_	0.0	69.3	99	69.3	10	Snd LvI	62.3	7.0	2	2.0
Receiver202	202	1	0.0	64.2	99	64.2	10	***************************************	59.7	4.5	2	-0.5
Receiver203	203	-	0.0	65.4	99	65.4	10	7-1-1-1	60.4	5.0	သ	0.0
Receiver204	204	~	0.0	64.1	99	64.1	10		59.9	4.2	5	9.Q
Receiver205	205	1	0.0	64.8	99	64.8	10		59.5	5.3	S	0.3
Receiver206	206	-	0.0	61.1	99	61.1	19		58.4	2.7	22	-2.3
Receiver207	207	_	0.0	0.0	99	0.0	10	invalid	0.0	0.0	လ	0.0
Receiver 208	208	-	0.0	0.0	99	0.0	10	invalid	0.0	0.0	S	0.0
Receiver 209	509	-	0.0	67.1	99	67.1	10	Snd Lvl	61.2	5.9	5	6.0
Receiver210	210	7	0.0	9.99	99	9.99	10	Snd Lvl	60.8	5.8	ည	0.8
Receiver211	211	1	0.0	65.8	99	65.8	1		60.3	5.5	5	0.5
Receiver212	212	-	0.0	64.3	99	64.3	5		59.4	6.4	5	-0.1
Receiver213	213	_	0.0	63.3	99	63.3	10		58.8	4.5	3	-0.5
Receiver214	214	1	0.0	62.5	99	62.5	10		58.4	4.1	5	Q. Q.
Receiver215	215	1	0.0	619	99	61.9	10	***************************************	57.9	4.0	5	-1.0
Receiver216	216	~-	0.0	61.1	99	61.1	10	1	57.6	3.5	5	-1.5
Receiver217	217	+	0.0	0.0	99	0.0	10	invalid	0.0	0.0	2	0.0
Receiver218	218	-	0.0	9.09	99	9.09	10		58.7	1.9	ည	-3.1
Receiver219	219	1	0.0	61.0	99	61.0	10		59.5	1.5	5	-3.5
Receiver220	220	1	0.0	60.7	99	60.7	10	1	59.0	1.7	ည	-3.3
Receiver222	222	Τ.	0.0	69.2	99	69.2	10	Snd Lvl	67.3	1.9	သ	5.1
Receiver223	223	1	0.0	65.4	99	65:4	19	1	63.2	2.2	D.	-2.8
Receiver225	225	1	0.0	65.4	99	65.4	19		64.1	1.3	ις:	-3.7
Receiver226	226	-	0.0	66.4	99	66.4	10	Snd LvI	64.9	1.5	2	-3.5
Receiver227	227	_	0.0	67.4	99	67.4	10	Snd LvI	62.9	1.5	5	-3.5
Receiver228	228	1	0.0	65.2	99	65.2	10	*11	63.7	1.5	വ	-3.5
Receiver229	229	_	0.0	65.6	99	65.6	10	1	64.1	1.5	5	-3.5
Receiver230	230	1	0.0	66.4	99	66.4	19	Snd Lvl	. 65.0	1.4	S.	-3.6
Receiver231	231	1	0.0	64.7	99	64.7	19		63.2	1.5	ις.	-3.5
Receiver232	232	_	0.0	65.1	99	65.1	10		63.7	1.4	5	-3.6
INDER JECTS/ASSISSION SET TINE DINESTAN	M DC CVA	MOLEVIII		1000								

I:IPROJECTS\4207\NO\SE\TNM RUNS\TNM RE - EVALUATION\Seg5 Barrier on Fix

SULTS: SOUND LEVELS

RESULIS: SOUND LEVELS						-75 Noise					
Receiver233	233	1 0.0	0 65.7	99 2	65.7	10	es ser ser ser	64.3	4.1	5	-3.6
Receiver235	235	1 0.0	68.8	8 71	68.8	10		68.8	0.0	5	-5.0
Receiver237	237	1 0.0	0.0	0 71	0.0	10	invalid	0.0	0.0	5	0.0
Receiver239	239	1 0.0	63.6	6 71	63.6	10		63.6	0.0	5	-5.0
Receiver242	242	1 0.0	0.77	0 51	77.0	10	Snd Lvl	71.4	5.6	3	9.0
Receiver244	244	1 0.0	0 64.3	3 66	64.3	10	-	62.4	1.9	5	-3.1
Dwelling Units	# DO	# DUs Noise Reduction	duction					in the state of th			
		Min	Avg	Max	1,						
		фB	фB	фB	1						
All Selected	15	193 0.0	2.8	8 11.8	l-a"						
All Impacted	1	70 0.1	1 4.0	0 11.8							
All that meet NR Goal	(,)	37 5.0	0 6.7	7 11.8	1						

Study
Noise
1-75

The Corradino Group John Bucher							22 Septer	22 September 2014					
RESHI TS: SOI IND FEVERS							Calculate	Calculated with TNM 2.5	2.5				
PROJECT/CONTRACT: RUN: BARRIER DESIGN:	Se S	I-75 Noise Stu Seg5a - 11 mi INPUT HEIGI		udy Ile to Gardenia - Walls 1TS	Valls			Average p	Average pavement type shall he used unless	ash ed lleds	ssejun þ		
ATMOSPHERICS:	99	68 deg F,	, 50% RH					a State hig of a differ	a State highway agency substantiates the use of a different type with approval of FHWA.	/ substantiat	es the use		
Receiver													
	No. #D	#DUs E	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	tion		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	ted
							Sub'l Inc					minus	
	-	7	dBA	дВА	ABA	45	٩		ABA	ar	a	Goal	
Receiver1		-	0.0	72.9	71		2 10	ly l bas	102	2	3		0
Receiver3	က	-	0.0	68.8					68.8			2 4	-5.0
Receiver4	4	-	0.0	67.3	71	67.3	3 10		67.3				-5.0
Receiver5	5	1	0.0	64.8	71	64.8	8 10		64.8			2	-5.0
Receiver6	9	-	0.0	63.9	71		9 10		63.9	0.0		5	5.0
Receiver7	7	-	0.0	62.5	71		5 10		62.5	0.0		5	-5.0
Receiver8	8	-	0.0	68.9			9 10		65.9	3.0		2	-2.0
Receiver9	<u></u>	-	0.0	0.99				Snd LvI	64.2			5	-3.2
Receiver10	10	-	0.0	64.8				Miller	62.8			5	-3.0
Receiver11	11	-	0.0	63.4					61.2			10	-2.8
Receiver12	12	-	0.0	71.8					69.8				9.0 م
Receiver13	133	-	0.0	67.7					65.0	2.7			-2.3
Kecelver 14	14	-	0.0	66.4				Snd LvI	63.6	2.8			-2.2
Keceiver15	15	-	0.0	64.9					62.4	2.5			-2.5
Receiverto	J6	-	0.0	64.1					61.3	2.8			-2.2
Keceiver1/	17		0.0	72.7				Snd Lvl	68.3	4.4	ည		-0.6
Receiver18	9	-	0.0	64.2				and the same of th	6.09	3.3			-1.7
Receiver19	9	-	0.0	64.9			-		61.5	3.4	5		-1.6
Receiver20	20	_	0.0	65.8			8 10		62.4	3.4	9		7.
Receiver21	21	_	0.0	0.79		67.0	0 10	Iv1 bn8	63.3	3.7			1.3
Receiver22	22	+	0.0	68.3					64.4	3.9	5		-1.1
Receiver23	23	-	0.0	69.1					65.1	4.0	5 P		-1.0
Receiver24	24		0.0	70.3	66	70.3	3 10	Snd Lvl	65.8	4.5			-0.5

25 1 0.0 72.9 66 26 1 0.0 67.3 66 27 1 0.0 67.3 66 29 1 0.0 67.3 66 30 1 0.0 67.3 66 31 1 0.0 64.9 66 32 1 0.0 64.9 66 33 1 0.0 64.4 66 34 1 0.0 64.9 66 33 1 0.0 64.9 66 34 1 0.0 64.9 66 40 1 0.0 64.9 66 40 1 0.0 64.9 66 40 1 0.0 64.9 66 40 1 0.0 67.3 66 41 1 0.0 67.3 66 42 1 0.0 67.3 66 44 1 0.0 67.3 66 44 1 0.0 67.3 66 44 1 0.0 67.3 66 44 1 0.0 67.8 66			69.2 66.3 64.6 63.7 62.1 61.2 64.2 63.2 65.9 65.9 65.9 65.9 65.9	3.4.7	1.1. 1.1.
26 1 0.0 70.2 66 27 1 0.0 68.5 66 28 1 0.0 67.3 66 30 1 0.0 67.3 66 31 1 0.0 64.9 66 32 1 0.0 64.9 66 33 1 0.0 64.9 66 33 1 0.0 64.9 66 33 1 0.0 64.9 66 33 1 0.0 64.9 66 34 1 0.0 64.9 66 35 1 0.0 67.9 66 40 1 0.0 67.9 66 44 1 0.0 67.2 66 44 1 0.0 67.8 66 45 1 0.0 67.8 66 46 1 0.0 67.8 66 <th></th> <th></th> <th>66.3 64.6 63.7 62.8 62.1 61.2 64.2 63.2 63.2 65.9 65.9 65.9 65.9</th> <th></th> <th>1.1.1 1.1.2 1.1.3 1.3</th>			66.3 64.6 63.7 62.8 62.1 61.2 64.2 63.2 63.2 65.9 65.9 65.9 65.9		1.1.1 1.1.2 1.1.3 1.3
27 1 0.0 68.5 66 28 1 0.0 67.3 66 29 1 0.0 67.3 66 30 1 0.0 67.3 66 31 1 0.0 67.9 66 32 1 0.0 64.9 66 33 1 0.0 76.7 66 34 1 0.0 76.7 66 35 1 0.0 68.9 66 40 1 0.0 67.9 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 44 1 0.0 67.3 66 45 1 0.0 68.8 66 46 1 0.0 68.8 66 50 1 0.0 67.2 66 60 60 67.2 66 66 70 1 0.0 67.2 66 80 1 0.0 67.3 66			64.6 63.7 62.8 62.1 61.2 60.6 64.2 64.2 63.2 62.4 61.9 61.9 61.9 61.2 63.5 63.5		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
28 1 0.0 67.3 66 29 1 0.0 66.3 66 30 1 0.0 66.7 66 31 1 0.0 64.9 66 32 1 0.0 64.9 66 33 1 0.0 64.9 66 34 1 0.0 64.9 66 35 1 0.0 77.1 66 40 1 0.0 67.9 66 40 1 0.0 67.9 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 44 1 0.0 67.2 66 44 1 0.0 66.5 66 44 1 0.0 68.8 66 44 1 0.0 68.8 66 45 1 0.0 67.2 66 50 1 0.0 67.2 66 60 1 0.0 68.5 66 61 1 0.0 68.5 66 62 1 0.0 68.5 66			63.7 62.8 62.1 61.2 60.6 71.1 66.2 63.2 62.8 62.8 62.4 61.9 61.2 63.5 63.5		1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1
29 1 0.0 66.3 66 30 1 0.0 66.7 66 31 1 0.0 64.9 66 32 1 0.0 64.9 66 34 1 0.0 64.9 66 34 1 0.0 64.9 66 35 1 0.0 64.9 66 36 1 0.0 67.9 66 40 1 0.0 67.9 66 40 1 0.0 67.9 66 40 1 0.0 67.3 66 44 1 0.0 65.7 66 45 1 0.0 67.3 66 46 1 0.0 67.2 66 47 1 0.0 67.2 66 50 1 0.0 67.2 66 60 1 0.0 67.2 66 60 1 0.0 67.2 66 60 <td< td=""><td></td><td></td><td>62.8 62.1 60.6 71.1 66.2 66.2 62.8 62.8 61.9 61.9 61.2 65.9 65.9</td><td></td><td>1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1</td></td<>			62.8 62.1 60.6 71.1 66.2 66.2 62.8 62.8 61.9 61.9 61.2 65.9 65.9		1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1
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32 1 0.0 64.4 66 33 1 0.0 76.7 66 34 1 0.0 73.1 66 35 1 0.0 73.1 66 36 1 0.0 68.9 66 37 1 0.0 67.9 66 40 1 0.0 67.3 66 42 1 0.0 65.7 66 44 1 0.0 65.7 66 44 1 0.0 65.7 66 45 1 0.0 67.3 66 46 1 0.0 67.2 66 46 1 0.0 67.8 66 50 1 0.0 67.8 66 60 1 0.0 67.8 66 60 1 0.0 67.8 66 60 1 0.0 67.8 66 60 1 0.0 67.8 66 60 1 0.0 67.8 66 60 1 0.0 67.2 66 60 1 0.0 67.8 66			60.6 71.1 66.2 63.2 62.4 61.9 61.2 63.5 63.5		-1.2 0.6 1.9 0.7 0.1 -0.1 1.0 0.5 0.6 0.8 0.8
33 1 0.0 76.7 66 34 1 0.0 73.1 66 35 1 0.0 73.1 66 36 1 0.0 68.9 66 37 1 0.0 67.9 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 42 1 0.0 67.3 66 44 1 0.0 65.7 66 44 1 0.0 65.7 66 45 1 0.0 65.7 66 45 1 0.0 65.7 66 46 1 0.0 68.8 66 50 1 0.0 68.8 66 60 1 0.0 68.8 66 60 1 0.0 68.8 66 60 1 0.0 68.3 66 60 1 0.0 66.5 66 60 <td< td=""><td></td><td></td><td>66.2 66.2 63.2 62.8 62.4 61.9 61.2 63.5 63.5</td><td></td><td>0.0 1.9 0.1 0.1 -0.1 -0.5 -0.5 -0.5 -0.5 -0.6 0.6 0.8</td></td<>			66.2 66.2 63.2 62.8 62.4 61.9 61.2 63.5 63.5		0.0 1.9 0.1 0.1 -0.1 -0.5 -0.5 -0.5 -0.5 -0.6 0.6 0.8
34 1 0.0 73.1 66 35 1 0.0 70.6 66 36 1 0.0 68.9 66 37 1 0.0 67.9 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 42 1 0.0 65.7 66 44 1 0.0 65.7 66 46 1 0.0 65.7 66 46 1 0.0 67.2 66 46 1 0.0 67.2 66 50 1 0.0 67.2 66 51 1 0.0 67.2 66 52 1 0.0 67.2 66 54 1 0.0 67.2 66 55 1 0.0 67.3 66 55 1 0.0 66.5 66 66 66 66 66 66 70 6			66.2 64.2 63.2 62.8 62.4 61.9 61.2 65.9 65.9 64.3		1.0 0.1 0.1 0.0 0.3 0.5 0.6 0.0 0.1 0.1 0.1 0.1 0.1
35 1 0.0 70.6 66 36 1 0.0 68.9 66 37 1 0.0 67.3 66 40 1 0.0 67.3 66 40 1 0.0 67.3 66 40 1 0.0 65.7 66 42 1 0.0 65.7 66 44 1 0.0 72.1 66 44 1 0.0 72.1 66 45 1 0.0 67.8 66 46 1 0.0 67.8 66 50 1 0.0 67.8 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 67.3 66 60 1 0.0 67.3 66 60 1 0.0 67.3 66 60 <td< td=""><td></td><td></td><td>64.2 63.2 62.8 62.8 61.9 61.2 69.5 65.9 64.3</td><td></td><td>0.7 0.1 -0.1 -0.3 -0.5 0.6 0.6 1.0 0.0 0.8</td></td<>			64.2 63.2 62.8 62.8 61.9 61.2 69.5 65.9 64.3		0.7 0.1 -0.1 -0.3 -0.5 0.6 0.6 1.0 0.0 0.8
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37 1 0.0 67.9 66 38 1 0.0 67.3 66 40 1 0.0 66.6 66 40 1 0.0 66.6 66 42 1 0.0 75.1 66 44 1 0.0 72.1 66 45 1 0.0 70.3 66 46 1 0.0 69.3 66 47 1 0.0 68.8 66 50 1 0.0 67.2 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 66.5 66 60 1 0.0 68.8 66 60 52 1 0.0 68.8 66 60 66.5 66 66 66 60 66.5 66 66 66 60 66.5 66 66			62.8 61.9 61.2 69.5 65.9 64.3 63.5		0.1 -0.1 -0.3 -0.5 -0.5 -0.5 -0.6 -0.6 -0.8
38 1 0.0 67.3 66 39 1 0.0 66.6 66 40 1 0.0 66.6 66 42 1 0.0 75.1 66 43 1 0.0 75.1 66 44 1 0.0 70.3 66 45 1 0.0 69.3 66 46 1 0.0 69.3 66 47 1 0.0 69.3 66 48 1 0.0 67.8 66 50 1 0.0 66.5 66 60 7 7.1 66 50 1 0.0 66.5 66 60 7 7.1 66 60 7 7.1 66 60 69.5 66 66 60 69.5 66 66 60 69.5 66 66 60 69.5 66 66 60 69.5			62.4 61.9 61.2 69.5 65.9 64.3 63.5		-0.1 -0.3 -0.5 -0.6 -1.2 -1.0
39 1 0.0 66.6 66 40 1 0.0 65.7 66 42 1 0.0 75.1 66 43 1 0.0 72.1 66 44 1 0.0 72.1 66 46 1 0.0 69.3 66 47 1 0.0 67.8 66 48 1 0.0 67.2 66 50 1 0.0 67.2 66 50 1 0.0 67.2 66 50 1 0.0 67.2 66 50 1 0.0 67.2 66 50 1 0.0 66.5 66 50 1 0.0 60.5 66 52 1 0.0 68.8 66 56 1 0.0 68.8 66 56 1 0.0 69.5 66 56 1 0.0 67.3 66 66 <td< td=""><td></td><td></td><td>61.9 61.2 69.5 65.9 64.3 63.5</td><td></td><td>-0.3 -0.5 1.2 1.0 0.8</td></td<>			61.9 61.2 69.5 65.9 64.3 63.5		-0.3 -0.5 1.2 1.0 0.8
40 1 0.0 65.7 66 42 1 0.0 75.1 66 44 1 0.0 72.1 66 44 1 0.0 72.1 66 46 1 0.0 69.3 66 48 1 0.0 68.8 66 48 1 0.0 67.2 66 50 1 0.0 66.5 66 50 1 0.0 66.5 66 51 1 0.0 66.5 66 52 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.8 66 55 1 0.0 68.8 66 56 1 0.0 63.5 66 56 1 0.0 63.5 66 56 1 0.0 63.5 66 57 1 0.0 67.3 66 58 1 0.0 67.3 66 50 4 0.0 67.3 66 60 60 67.3 66 60			69.5 69.5 65.9 64.3 63.5		-0.5 0.6 1.2 1.0
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44 1 0.0 70.3 66 45 1 0.0 69.3 66 46 1 0.0 68.8 66 47 1 0.0 67.2 66 49 1 0.0 67.2 66 50 1 0.0 66.5 66 51 1 0.0 75.8 66 52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 69.5 66 55 1 0.0 68.1 66 55 1 0.0 67.3 66 56 1 0.0 67.3 66 56 1 0.0 77.7 66 56 1 0.0 77.7 66			64.3		1.0
46 1 0.0 69.3 66 46 1 0.0 68.8 66 47 1 0.0 67.8 66 48 1 0.0 67.2 66 50 1 0.0 66.5 66 51 1 0.0 75.8 66 52 1 0.0 71.1 66 53 1 0.0 69.5 66 54 1 0.0 69.5 66 55 1 0.0 68.1 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 56 1 0.0 77.1 66 56 1 0.0 67.3 66 56 1 0.0 77.7 66			63.5		0.8
46 1 0.0 68.8 66 48 1 0.0 67.8 66 48 1 0.0 67.2 66 50 1 0.0 66.5 66 50 1 0.0 75.8 66 51 1 0.0 77.1 66 52 1 0.0 69.5 66 53 1 0.0 69.5 66 54 1 0.0 68.1 66 55 1 0.0 67.3 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 56 1 0.0 67.3 66 56 1 0.0 77.7 66			0 00		
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48 1 0.0 67.2 66 49 1 0.0 66.5 66 50 1 0.0 75.8 66 51 1 0.0 71.1 66 52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 50 77.7 66		10 Snd LvI	62.3		0.5
49 1 0.0 66.5 66 50 1 0.0 75.8 66 51 1 0.0 77.1 66 52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 55 1 0.0 67.3 66 57 1 0.0 77.1 66 50 77.7 66		10 Snd Lvl	62.2		0.0
50 1 0.0 75.8 66 51 1 0.0 71.1 66 52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 56 1 0.0 77.7 66			62.2		-0.7
51 1 0.0 71.1 66 52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 56 1 0.0 77.7 66	***************************************	10 Snd Lvi	72.2		4.1-
52 1 0.0 70.5 66 53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 50 73.7 66		10 Snd Lvl	67.7	-	-1.6
53 1 0.0 69.5 66 54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 58 1 0.0 73.7 66		10 Snd Lvl	66.5		-1.0
54 1 0.0 68.8 66 55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 58 1 0.0 73.7 66 50 74.7 66			65.7		-1.2
55 1 0.0 68.1 66 56 1 0.0 67.3 66 57 1 0.0 77.1 66 58 1 0.0 73.7 66 59 4 0.0 73.7 66			65.0		-1.2
56 1 0.0 67.3 66 57 1 0.0 77.1 66 58 1 0.0 73.7 66 50 4 0.0 73.7 66		10 Snd Lvl	64.4	3.7 5	-1.3
57 1 0.0 77.1 66 58 1 0.0 73.7 66 58 1 0.0 73.7 66			63.6		-1.3
58 1 0.0 73.7 66		10 Snd Lvl	73.7		-1.6
100 1100			67.6		
1) U.U l.		10 Snd Lví	66.7		0.0
70.6		10 Snd Lvl	67.1		-1.5
Receiver61 61 1 0.0 69.7 66 69.7		10 Snd Lvl	66.4		-1.7
1 0.0 69.0			62.9	·	-1.9
68.4 66		10 Snd Lvl	65.2	:	-1.8
67.8 66	1 9	10 Snd Lvl	64.5		-1.7
65 1 0.0 67.2	2 9		63.8		-1.6
1 0.0	66 77.1	10 Snd Lvl	76.1		-4.0

RESULTS: SOUND LEVELS						ī.	I-75 Noise Study	Study				•
Receiver67	29	-	0.0	74.2	99	74.2	10	Snd Lvi	72.7	1.5	5	-3.5
Receiver68	89	-	0.0	72.1	99	72.1	10	Snd Lvl	70.5	1.6	1 40	-3.4
Receiver69	69	1	0.0	71.0	99	71.0	10	Snd Lvl	9.69	4.	- 40	
Receiver70	20	1	0.0	8.69	99	69.8	10	Snd Lvl	68.4	4.	120	-36
Receiver71	7.1	-	0.0	689	99	68.9	10	Snd Lvi	67.5	4.	ıc.	3.6
Receiver72	72	-	0.0	68.2	99	68.2	10	Snd Lvl	66.7	1.5	5	-3.5
Receiver73	73	+	0.0	67.3	99	67.3	10	Snd LvI	65.8	1.5	150	-3.5
Receiver74	74	-	0.0	66.5	99	66.5	10	Snd LvI	65.0	1.5	2	-3.5
Receiver159	159	4	0.0	72.8	99	72.8	10	Snd LvI	71.7	1.	5.	6.6
Receiver160	160	4	0.0	79.3	99	79.3	10	Snd Lvl	74.7	4.6	2 15	-0.4
Receiver161	161	4	0.0	78.0	99	78.0	10	Snd Lvl	71.8	6.2	- C2	12
Receiver162	162	4	0.0	72.8	99	72.8	10	Snd Lvl	65.6	7.2	· LC	2.2
Receiver163	163	4	0.0	49.0	99	49.0	9		49.3	-0.3	2	5.3
Receiver164	164	4	0.0	47.8	99	47.8	10		48.2	-0.4	- LC	-5.4
Receiver165	165	4	0.0	49.7	99	49.7	10		49.8	-0.1	Ð.	, 1,2,
Receiver166	166	4	0.0	50.1	99	50.1	10		50.2	-0.1	lS)	-5.1
Receiver167	167	4	0.0	72.9	99	72.9	10	Snd Lví	65.5	7.4	2	2.4
Receiver168	168	4	0.0	77.6	99	77.6	10	Snd Lvl	70.7	6.9	5	1.9
Receiver169	169	4	0.0	78.9	99	78.9	10	Snd Lvl	73.5	5.4	-C2	0.4
Receiver170	170	4	0.0	69.3	99	69.3	19	Snd LvI	63.8	5.5	ις,	0.5
Receiver171	171	4	0.0	49.8	99	49.8	10		50.2	-0.4	2	-5.4
Receiver172	172	4	0.0	49.1	99	49.1	10	M object	49.3	-0.2	2	-5.2
Receiver173	173	4	0.0	47.9	99	47.9	10		48.3	-0.4	5	-5.4
Receiver174	174	4	0.0	49.1	99	49.1	10		49.0	0.1	22	4
Receiver191	191	4	0.0	63.0	99	63.0	10		62.2	0.8	5	4.2
Receiver192	192	4	0.0	62.9	99	62.9	10		61.7	1.2	5	.3.8
Receiver193	193	4	0.0	61.9	99	61.9	10		57.8	4.1	2	-0.9
Receiver194	194	4	0.0	62.2	99	62.2	10	1	57.0	5.2	5	0.2
Receiver195	195	4	0.0	63.5	99	63.5	10	1	57.5	6.0	C)	1.0
Receiver196	196	4	0.0	62.8	99	62.8	9		57.2	5.6	5	9.0
Receiver197	197	4	0.0	61.6	99	61.6	10		56.6	5.0	Ω.	0.0
Receiver198	198	4	0.0	61.5	99	61.5	10		56.7	4.8	35	-0.2
Receiver200	200	-	0.0	62.8	99	62.8	10		61.3	1.5	2	-3.5
Receiver201	201	1	0.0	71.7	99	71.7	0	Snd LvI	68.4	3.3	rc.	-1.7
Receiver202	202	1	0.0	69.5	99	69.5	9	Snd LvI	65.0	4.5	22	-0.5
Receiver203	203	1	0.0	9'29	99	67.6	10	Snd Lvl	64.0	3.6	5	-1.4
Receiver204	204	-	0.0	65.3	99	65.3	40	1	62.3	3.0	5	-2.0
Receiver205	205	1	0.0	68.6	99	68.6	10	Snd Lvl	65.6	3.0	2	-2.0
Receiver206	206	1	0.0	66.3	99	66.3	10	Snd Lví	64.1	2.2	3	-2.8
Receiver207	207	1	0.0	65.8	99	65.8	10		63.4	2.4	5	-2.6
Receiver208	208	_	0.0	69.3	99	69.3	10	Snd Lvl	68.2	1.1	5	-3.9
PARTICIPATION OF THE PRINCIPAL PRINCIPAL	M DC 67/A	I OIT VI	"Confee Fra		•	,	-	7	•			

I:\PROJECTS\4207\NOISE\TNM RUNS\TNM RE - EVALUATION\Seg5a Extension

Receiver209	209	1 0.0	68.9	99	68.9	10	Snd Lvl	67.5	1.4	သ	5.3
Receiver74	74	1 0.0	62.9	99	62.9	10		60.2	5.7	5	:
Receiver210	210	1 0.0	66.5	99	66.5	10	Snd Lvl	80.8	5.7	2	
Receiver211	211	1 0.0	64.8	99	64.8	10	7,000	59.7	5.1	2	
Receiver212	212	1 0.0	64.0	99	64.0	10	WING A	59.2	4.8	5	-0.2
Receiver213	213	1 0.0	65.3	99	65.3	10	-	59.9	5.4	9	0.4
Receiver214	214	1 0.0	63.2	99	63.2	10		58.8	4.4	5	-0.6
Receiver215	215	1 0.0	60.7	99	60.7	10		56.8	3.9	3	1.1
Receiver216	216	1 0.0	58.0	99	58.0	10		55.3	2.7	33	-2
Receiver217	217	1 0.0	56.4	99	56.4	10		54.7	1.7	2	-3.3
Receiver218	218	1 0.0	57.2	99	57.2	10		55.3	1.9	22	-3.1
Receiver219	219	1 0.0	57.2	99	57.2	10	#	55.8	1.4	2	-3.6
Receiver220	220	1 0.0	58.1	99	58.1	10	414444	57.4	0.7	5	4.3
Receiver221	221	1 0.0	59.8	99	59.8	10		59.6	0.2	3	-4.8
Receiver222	222	1 - 0.0	61.2	99	61.2	10		8.09	4.0	5	-4.6
Receiver223	. 223	4 0.0	72.1	99	72.1	10	Snd Lvl	72.0	0.1	2	4.9
Receiver225	225	4 0.0	72.1	99	72.1	10	Snd Lvl	72.1	0.0	2	-5.0
Receiver226	226	4 0.0	71.8	99	71.8	10	Snd Lvl	71.7	0.1	5	4.9
Receiver227	227	4 0.0	71.7	99	71.7	10	Snd Lvl	71.7	0.0	'n	-5.0
Receiver228	228	4 0.0	72.4	99	72.4	10	Snd Lvl	72.3	0.1	LO.	-4.9
Receiver229	229	4 0.0	72.4	99	72.4	10	Snd Lvl	72.3	0.1	Ω.	-4.9
Receiver230	230	4 0.0	71.9	99	71.9	10	Snd LvI	71.8	0.1	£C)	4.9
Receiver231	231	4 0.0	72.5	99	72.5	10	Snd Lvi	72.4	0.1	S	4.9
Receiver232	232	4 0.0	73.9	99	73.9	10	Snd Lvl	73.8	0.1	2	4.9
Receiver233	233	4 0.0	73.8	99	73.8	10	Snd Lvl	73.7	0.1	5	4.9
Receiver235	235	4 0.0	73.3	99	73.3	10	Snd Lvl	73.2	0.1	S.	4.9
Receiver237	237	4 0.0	75.3	99	75.3	10	Snd Lvl	75.3	0.0	кo	-5.0
Receiver238	238	4 0.0	75.7	99	75.7	10	Snd LvI	75.7	0.0	2	-5.0
Receiver239	239	4 0.0	77.0	99	77.0	10	Snd LvI	0.77	0.0	co	-5.0
Receiver240	240	4 0.0	72.3	99	72.3	10	Snd Lví	72.2	0.1	သ	4.9
Receiver241	241	0.0	72.4	99	72.4	10	Snd Lvl	72.3	0.1	ß	4.9
Receiver242	242	4 0.0	77.7	99	77.77	10	Snd Lvi	7.77	0.0	വ	-5.0
Receiver243	243	0.0	76.0	99	76.0	10	Snd Lvl	75.9	0.1	22	4.9
Receiver244	244	4 0.0	76.1	99	76.1	10	Snd Lvl	76.1	0.0	2	-5.0
Receiver245	245	4 0.0	75.4	99	75.4	10	Snd Lvi	75.4	0.0	သ	-5.0
Receiver246	246	0.0	76.0	99	76.0	10	Snd Lvl	76.0	0.0	5	-5.0
Receiver247	247	1 0.0	77.4	99	77.4	10	Snd Lvl	77.4	0.0	5	-5.0
Receiver248	248	1 0.0	9.77	99	77.6	10	Snd Lvl	77.6	0.0	5	-5.
Receiver249	249	1 0.0	77.5	99	77.5	10	Snd LvI	77.5	0.0	5	5.0
Receiver250	250	1 0.0	77.5	99	77.5	10	Snd LvI	77.5	0.0	9	-5.0
Receiver251	251	1 0.0	7.77	99	77.7	9	Snd Lv	777	00	ĸ	-5.0

RESULTS: SOUND LEVELS							I-75 Noise Study	Study				
Receiver252	252	+	0.0	77.9	99	77.9	10	Snd Lvl	77.9	0.0	ស	-5.0
Receiver253	253	_	0.0	78.2	99	78.2	10	Snd Lvl	78.1	0.1	2	4.9
Receiver254	254	<u>-</u>	0.0	78.0	99	78.0	10	Snd Lvl	78.0	0.0	5	-5.0
Receiver255	255	-	0.0	78.2	99	78.2	10	Snd Lvl	78.1	0.1	5	4.9
Receiver 256	256	_	0.0	78.2	99	78.2	10	Snd Lvl	78.0	0.2	5	4
Receiver257	257	-	0.0	78.1	99	78.1	10	Snd Lvl	77.8	0.3	5	4.7
Receiver258	258	-	0.0	78.1	99	78.1	10	Snd Lvl	7.77	0.4	5	4.6
Receiver259	259	_	0.0	7.77	99	7.77	10	Snd Lvl	76.0	1.7	5	-3.3
Receiver260	260	-	0.0	78.0	99	78.0	10	Snd Lvl	75.7	2.3	ß	-2.7
Receiver261	261	-	0.0	7.77	99	7.77	10	Snd Lvl	74.3	3.4	£	-1.6
Receiver262	262	-	0.0	77.6	99	77.6	10	Snd LvI	73.3	4.3	2	-0.7
Receiver263	263	-	0.0	77.2	99	77.2	10	Snd LvI	72.4	4.8	5	-0.2
Receiver264	264	-	0.0	76.7	99	76.7	10	Snd LvI	70.9	5.8	2	0.8
Receiver265	265	-	0.0	75.9	99	75.9	10	Snd Lvl	70.0	5.9	r.	0.9
Receiver266	266	-	0.0	75.1	99	75.1	10	Snd Lvl	69.5	5.6	5	0.6
Receiver267	267	-	0.0	74.3	99	74.3	10	Snd Lvl	69.1	5.2	co.	0.2
Receiver268	268	-	0.0	74.1	99	74.1	10	Snd LvI	69.1	5.0	c)	0.0
Receiver269	269	-	0.0	74.1	99	74.1	10	Snd LvI	69.3	4.8	29	-0.2
Receiver270	270	_	0.0	74.0	99	74.0	10	Snd Lvi	69.5	4.5	വ	-0.5
Receiver271	271	-	0.0	73.0	99	73.0	10	Snd Lvl	69.3	3.7	5	-1.3
Receiver272	272	_	0:0	68.3	71	68.3	10		67.4	6.0	5	4.
Receiver274	274	+	0.0	0.09	99	0.09	10		0.09	0.0	-Cr	-5.0
Receiver275	275	_	0.0	64.6	99	64.6	10		64.4	0.2	5	-4.8
Receiver276	276	-	0.0	62.0	99	62.0	10	Walnu	62.0	0.0	ιΩ.	-5.0
Receiver277	277	_	0.0	57.1	99	57.1	10	***************************************	57.0	0.1	5	4.9
Receiver278	278	1	0.0	6.03	99	50.9	9	1	50.9	0.0	5	-5.0
Receiver279	279	_	0.0	55.8	99	55.8	10		55.5	0.3	5	4.4
Receiver280	280	1	0.0	50.5	99	50.5	10		50.5	0.0	5	5.0
Receiver281	281	γ	0.0	50.6	99	50.6	10		50.7	-0.1	S	-5.1
Receiver282	282	1	0.0	57.7	99	57.7	19		57.7	0.0	5	-5.0
Receiver283	283	_	0.0	52.4	99	52.4	10	1	52.5	-0.1	£0	-5.1
Receiver284	284	~	0.0	50.5	99	50.5	10	-	50.5	0.0	5	-5.0
Receiver285	285	-	0.0	54.4	99	54.4	10		54.2	0.2	5	4.8
Receiver286	286	-	0.0	52.5	99	52.5	10		52.4	0.1	22	4.9
Receiver272	272	-	0.0	27.1	7.1	27.1	10	-	27.1	0.0	5	-5.0
Receiver287	287	_	0.0	59.6	99	59.6	10		59.5	0.1	5	4.9
Receiver288	288	1	0.0	62.6	99	62.6	10		62.3	0.3	5	-4.7
Receiver289	289	_	0.0	60.4	99	60.4	10		60.2	0.2	5	4.8
Receiver290	290	1	0.0	58.2	99	58.2	10		57.9	0.3	co	4.7
Receiver291	291	_	0.0	62.5	99	62.5	10	*****	62.4	0.1	5	4.9
Receiver292	292	_	0.0	62.9	99	62.9	10		62.8	0.1	5	4.9
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RESULTS: SOUND LEVELS

RESULTS: SOUND LEVELS				-	2-1	I-75 Noise Study	Study				
Receiver293	293	1 0.0	56.5	99	56.5	10	-	56.4	0.1	15	4.9
Receiver294	294	0.0	58.1	99	58.1	10	Atheredes	58.1	0.0	22	-5.0
Receiver295	295	1 0.0	63.2	99	63.2	10		63.1	0.1	2	4.9
Receiver 296	296	0.0	63.6	99	63.6	10		63.5	0.1	က	4.9
Receiver297	297	1 0.0	62.2	99	62.2	10	************	62.1	0.1	သ	4.9
Receiver298	298	1 0.0	62.5	99	62.5	10		62.3	0.2	က	4 8
Receiver299	299	1 0.0	62.5	99	62.5	10		62.3	0.2	3	4.8
Receiver300	300	1 0.0	64.6	99	64.6	10	TOWER.	64.5	0.1	S.	4.9
Receiver301	301	1 0.0	66.3	99	66.3	10	Snd Lvl	66.3	0.0	5	-5.0
Receiver 302	302	1 0.0	67.1	99	67.1	10	Snd Lvl	9.99	0.3	£	4.7
Receiver306	306	1 0.0	8.99		9.99	10	Snd Lvl	65.2	1.6	5	-3.4
Receiver307	307	1 0.0	66.4	99	66.4	10	Snd Lvl	65.7	0.7	2	-4.3
Receiver308	308	1 0.0	9.99	99	9.99	10	Snd Lvl	0.99	9.0	ις:	4.4
Receiver 309	309	1 0.0	67.8	99	67.8	10	Snd Lvl	6.99	1.0	22	-4.0
Receiver311	311	1 0.0	65.8	99	65.8	10	-	2.09	5.1	5	0.1
Receiver312	312	1 0.0	66.4	99	66.4	10	Snd Lvl	63.3	3.1	ഹ	-1.9
Receiver313	313	0.0	67.2	99	67.2	10	Snd Lvl	66.2	1.0	က	4.0
Receiver314	314	1 0.0	6.79	99	67.9	10	Snd Lvl	61.4	6.5	ıC.	1.5
Receiver316	316	1 0.0		99	0.99	10	Snd Lvl	61.8	4.2	c	-0.8
Receiver317	317	1 0.0	66.2	99	66.2	10	Snd Lvl	60.7	5.5	5	0.5
Receiver318	318	1 0.0	65.6	99	65.6	10		60.3	5.3	5	0.3
Receiver319	319	1 0.0	64.2	99	64.2	10		61.6	2.6	S	-24
Receiver321	321	1 0.0	64.0	99	64.0	10		61.0	3.0	5	-2.0
Dwelling Units	# DUs	Noise	Reduction								
	-	Min	Avg	Max							
		фB	ф	æ							
All Selected	345	5 -0.4	2.3	7.4							
All Impacted	216										
All that meet NR Goal	99	5.0	5.8								

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I-75 Noise Study

The Corradino Group John Bucher							22 Septer TNM 2.5	22 September 2014 TNM 2.5				
							Calculate	Calculated with TNM 2.5	2.5			
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:		I-75 Noi Seg6 - (INPUT	I-75 Noise Study Seg6 - Gardenia INPUT HEIGHTS	I-75 Noise Study Seg6 - Gardenia to 12 Mile - Walls INPUT HEIGHTS	Nalls			Average D	avement fyne	Average pavement type shall he used unlacs	asejun þ	
ATMOSPHERICS:	-	68 deg	68 deg F, 50% RH	·				a State hig	hway agency	a State highway agency substantiates the use of a different type with approval of FHWA.	es the use	
Receiver												
	No.	#DUs	Existing	No Barrier					With Barrier	***************************************		
-	•		LAeq1h	LAeq1h		Increase over existing	er existing	Type	Calculated	Noise Reduction	tion	
				Calculated	Crit'n	Calculated	Crit'n	1	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
			dBA	dBA	dBA	фВ	фВ		dBA	dB	88	Goal
Receiver1	1	1	0.0	76.5		66 76.5	5 10	Snd Lvl	76.5	0.0	,	5 -5.0
Receiver2	2	7	0.0	78.3		66 78.3	3 10	Snd Lvl	78.3	0.0		
Receiver3	3	1	0.0	08.5		66 68.5	5 10	Snd Lvl	68.1	0.4		5 -4.6
Receiver4	4	1	0.0			66 68.8	8 10	Snd Lvl	68.3	0.5		
Receiver5	2	1	0.0			66 69.5	5 10	Snd LvI	68.9	9.0		5 4.4
Receiver6	9	-	0.0				9 10	Snd Lvl	71.9	1.0		5 4.0
Receiver7	7	1	0.0						0.69	4.4		9.0-
Receiver8	00	1	0.0				0 10	Snd Lvl	65.0	3.0		5 -2.0
Receiver9	တ	_	0.0					Snd LvI	61.8	6.9		1.9
Receiver10	19	_	0.0					time to a	61.7	1.1		
Receiver11	7	Τ.	0.0				0 10	1111	59.4	2.6		5 -2.4
Receiver12	12	T	0.0					FF-94-00-FF-	58.4	2.6		5 -2.4
Receiver13	13	1	0.0				2 10		58.0	4.2		9.0-
Receiver14	+	_	0.0					Snd Lvl	56.4	9.7		5 4.7
Receiver15	5	_	0.0					Snd Lví	55.5	10.6		5.6
Receiver16	16	~	0.0			66 59.6	9 10	***************************************	58.4	1.2		-3.8
Receiver17	17	/	0.0						56.7	1.8		-3.2
Receiver18	2	7	0.0		99 66	58.9	. 10	-	56.7	2.2		5 -2.8
Receiver19	9	_	0.0		8 66	59.8	8 10		57.1	2.7	1	-2.3
Receiver20	20	_	0.0				4 10		57.3	3.1	4,	5 -1.9
Receiver21	21		0.0				0 10		55.3	2.7	4,	5 -2.3
Receiver22	22	7	0.0		99	5 64.9		-	58.0	6.9		5 1.9
Receiver23	23	_	0.0	76.4			10	Snd Lvl	70.5	5.9	4,7	6:0

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RESULTS: SOUND LEVELS						7	I-75 Noise Study	Study				
Receiver24	24	_	0.0	6.69	99	6.69	10	Snd Lv!	67.0	2.9	5	-2.1
Receiver25	25	_	0.0	65.2	99	65.2	10	-	64.6	9.0	22	4.4
Receiver26	26	_	0.0	73.4	99	73.4	10	Snd Lvl	69.5	3.9	5	-11
Receiver27	27	-	0.0	2.69	99	2.69	10	Snd Lvl	65.7	4.0	2	-1.0
Receiver28	28	_	0.0	72.4	99	72.4	10	Snd Lvl	70.2	2.2	5	-2.8
Receiver29	29	_	0.0	65.4	99	65.4	10		65.4	0.0	5	-5.0
Receiver30	30	7-	0.0	71.3	99	71.3	10	Snd Lvl	69.3	2.0	5	-3.0
Receiver31	31	~	0.0	70.3	99	70.3	10	Snd Lvl	68.7	1.6	5	-3.4
Receiver32	32	-	0.0	64.0	99	64.0	10		64.0	0.0	5	-5.0
Receiver33	33	1	0.0	70.3	99	70.3	10	Snd Lvl	69.1	1.2	5	3.8
Receiver34	8	-	0.0	68.3	99	68.3	10	Snd Lvl	66.8	1.5	5	-3.5
Receiver39	39	12	0.0	71.9	99	71.9	10	Snd Lvl	8.99	5.1	5	0.1
Receiver40	40	2	0.0	71.5	99	71.5	10	Snd Lvl	67.2	4.3	5	-0.7
Receiver55	22	2	0.0	71.7	99	71.7	10	Snd Lvl	9.99	4.9	5	9
Receiver56	26	2	0.0	8.69	99	69.8	10	Snd Lv!	65.0	4.8	5	-0.2
Receiver57	27	2	0.0	71.4	99	71.4	10	Snd Lvl	6.79	3.5	5	-1.5
Receiver58	58	2	0.0	8.69	99	69.8	10	Snd Lvl	67.5	2.3	5	-2.7
Receiver59	59	2	0.0	72.6	99	72.6	10	Snd Lvl	71.6	1.0	5	4.0
Receiver61	61	1	0.0	63.6	99	63.6	10	1	63.2	4.0	5	-4.6
Receiver62	62	1	0.0	61.4	99	61.4	10		61.4	0.0	5	-5.0
Receiver63	63	1	0.0	66.8	99	8.99	10	Snd Lvl	66.2	9.0	-Ç2	-4.4
Receiver64	64	1	0.0	62.6	99	62.6	10	[62.6	0.0	2	-5.0
Receiver65	65	Ţ	0.0	9.09	99	9.09	10]	9.09	0.0	ಭ	-5.0
Receiver66	99	-	0.0	8.09	99	8.09	10		8.09	0.0	5	-5.0
Receiver67	67	1	0.0	64.5	99	64.5	10		63.5	1.0	5	4.0
Receiver68	68	-	0.0	64.8	99	64.8	10		64.6	0.2	2	4.8
Receiver69	69	_	0.0	63.7	99	63.7	10		63.5	0.2	5	4 8
Receiver70	70	_	0.0	62.1	99	62.1	10		61.9	0.2	2	4.8
Receiver71	71	1	0.0	59.4	99	59.4	10		59.4	0.0	5	-5.0
Receiver72	72	1	0.0	60.1	99	60.1	10		60.1	0.0	5	5.0
Receiver73	73	<u> </u>	0.0	63.6	99	63.6	10		63.1	0.5	5	-4.5
Dwelling Units	# DUs	ls Noise	Reduction									
		Min	Avg		×							
		dВ	dВ	др								
All Selected		71	0.0	2.3	10.6	•						
All Impacted		45	0.0	3.2	10.6							
All that meet NR Goal		17	5.1	7.5	10.6							

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I-75 Noise Study

The Corradino Group John Bucher							22 Septe	22 September 2014 TNM 2.5				_
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:	<u> </u>	75 Nois eg7 - 1 NPUT F	I-75 Noise Study Seg7 - 12 Mile to INPUT HEIGHTS	I-75 Noise Study Seg7 - 12 Mile to 14 Mile - Walls INPUT HEIGHTS	<u>s</u>		Calculat	Calculated with TNM 2.5 Average pavel	with TNM 2.5 Average pavement type shall be used unless	e shall be use	d unless	
ATMOSPHERICS:	U	68 deg F,	=, 50% RH	_				a State I	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantiate approval of F	es the use HWA.	
Receiver												
-	No.	#DOS	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing	er existing	Туре	Calculated	Noise Reduction	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus Goal
			dBA	dBA	₫BA	dB	dB		dBA	дB	dВ	фВ
Receiver20	20	8	0.0	73	2	66 73	73.2	10 Snd Lvl	67.1	6.1	5	1.1
Receiver2	2	4	0.0				73.3	10 Snd Lvl	71.5	1.8	İ	-3.2
Receiver3	က	ထ	0.0		6 66		73.6	10 Snd Lvl	72.7	0.9		
Receiver4	4	4	0.0				74.6	10 Snd Lvl	73.4	1.2		9.5
Receiver5	2	4	0.0		4 66			10 Snd Lvl	71.5	2.9	5	
Receiver6	9	4	0.0						73.4			-2.4
Receiver7	7	4	0.0							3.5		-1.5
Receiver8	80	4	0.0								5	•
Receiver9	တ	4	0.0									
Receiver10	9	4	0.0								5	
Receiver11	- 9	4	0.0									
Receiver12	7 5	4 4	0.0	77.4	4 66		77.4					
Receiver 13	2 2	1 <	0.0					IO SHO LVI				
Receiver(5	1 10	t 4	0.0					10 Sind Lvi	72.5	0.0	C 4	0.0
Receiver16	16	4	0.0				TARREST AND ADDRESS OF THE PARTY OF THE PART					
Receiver17	17	4	0.0		8 66							
Receiver18	18	4	0.0	76.0	99 0			10 Snd Lvl	71.1	4.9		-0.1
Receiver19	19	4	0.0		7 66			10 Snd Lvl	69.1	7.6	5	2.6
Receiver22	22	4	0.0		5 66		72.5	10 Snd Lvi	0.99			1.5
Receiver37	36	4	0.0							6.2		1.2
Receiver39	37	4	0.0								5	-0.4
Receiver41	88	8	0.0	72.6	99		72.6	10 Snd Lvl	67.8	4.8		

Receiver43
Receiver45
Receiver47
Receiver49
Receiver51
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> 71.1 70.6 71.0 69.8 69.8 69.8

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Snd Lvl Snd Lvl

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Snd Lvl

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71.2 72.4 76.2 76.2 75.7 74.8 74.1

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RESULTS: SOUND LEVELS						-		I-75 Noise Study	Study				٠	
The Corradino Group John Bucher								22 Septen TNM 2.5	22 September 2014 TNM 2.5					
								Calculate	Calculated with TNM 2.5	1 2.5				- ***
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-7 Se	5 Nois q8 - 14	i-75 Noise Study Seq8 - 14 Mile to F	i-75 Noise Study Seq8 - 14 Mile to Rochester Rd - Walls	d - Walls									
BARRIER DESIGN:	Z	PUTH	INPUT HEIGHTS					,	Average	Average pavement type shall be used unless	shall be use	ed unless		
ATMOSPHERICS:	. 99	68 deg F, 50	, 50% RH	_					a State h of a diffe	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantiat approval of I	es the use	d)	
Receiver														
Name	No. #D	#DUs E	Existing	No Barrier						With Barrier				
-		_	LAeq1h	LAeq1h		Incre	Increase over existing	existing	Type	Calculated	Noise Reduction	ction		
				Calculated	Crit'n	Calct	Calculated	Crit'n	Impact	LAeq1h	Calculated Goal	Goal	Calculated	ğ
								Sub'l Inc		NAME:	·		minus	
			dBA	dBA	dBA	ВВ		фВ		dBA	фB	dB	留	
Receiver1	-	-	0.0	76.7		99	7.97	10	Snd Lvl	66.3	10.4		2	5.4
Receiver2	2	-	0.0	76.2		99	76.2	10	Snd Lvl	66.4	9.8	~		8.4
Receiver3	3	1	0.0			99	75.9	10	Snd Lví	9.99	9.3			4.3
Receiver4	4	_	0.0	76.1		99	76.1	10	Snd Lvl	66.7	9.4	_	5	4.4
Receiver5	S.	_	0.0	75.7		99	7.5.7	10	Snd Lvl	66.0	9.7			4.7
Receiver6	80	7-	0.0	75.6		99	75.6	10	Snd Lvl	66.1	9.5		5	4.5
Receiver7	6	2	0.0			99	75.9	10	Snd Lvl	66.1	9.8		5	8.4
Receiver8	10	-	0.0			99	75.9	10	Snd Lvl	66.1	9.8			8.
Receiver9	11	_	0.0			99	75.9	10	Snd LvI	0.99	9.9		5	4.9
Receiver10	12	1	0.0	8.67		. 99	75.8	10	Snd Lvi	62.9	6.6			4.9
Receiver11	15	_	0.0	75.6		99	75.6	10	Snd Lvl	65.8	9.8	-	5	8.
Receiver12	16	-	0.0			99	75.4	10	Snd Lvl	65.7	9.7		5	4.7
Second Row	17	7	0.0			99	64.3	10		59.3	5.0	_	5	0.0
Receiver14	48	~	0.0			99	74.9	10	Snd Lvl	65.5	9.4		5	4.4
Receiver15	19	7	0.0			99	75.8	10	Snd Lvl	65.7	10.1		2	5.1
Receiver17	21	_	0.0	75.2		99	75.2	10	Snd Lvl	65.5	6.7		5 4	4.7
Dwelling Units]#	# DOS	O	Reduction										
,		_	Min	Avg	Max		•							
T THE STREET STR			дB	фB	ЯÞ									
All Selected		28	5.0		9.4 10.4	4.								
All Impacted		17	9.3			4						-		
All that meet NR Goal		28	5.0		9.4 10.4	4								

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RESULTS: SOUND LEVELS								_	I-75 Noise Study	Study						
The Corradino Group John Bucher								2 L	22 Septer TNM 2.5	22 September 2014 TNM 2.5					_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:		I-75 Noi Seg9 - I INPUT	I-75 Noise Study Seg9 - Rochester to Livernois - Walls INPUT HEIGHTS	rto Liv	ernois - V	Walls			alculate	Calculated with TNM 2.5 Average bave	with TNM 2.5 Average pavement type shall be used unless	44 44 51 44 44	a e	98 <u>9</u>		
ATMOSPHERICS:		68 deg F,	F, 50% RH	×						a State h of a diffe	a State highway agency substantiates the use of a different type with approval of FHWA.	y substar	itiates the	ne use A.		
Receiver						***************************************										
Name	No.	#DUs	Existing	No Barrier	arrier						With Barrier	I . i				
			LAeq1h	LAeq1h			Increase over existing	over e	xisting	Type	Calculated	Noise Reduction	duction			
				Calct	Calculated	Crit'n	Calculated		Crit'n	Impact	LAeq1h	Calculated	ed Goal	a	Calculated	_
				·				<i>o</i> ,	Sub'l Inc						minus Goal	
			dBA	dBA		dBA	gB	70	фB		dBA	фB	B B		aB B	
Receiver13	13		0.0	0	73.9	99		73.9	10	Snd Lvl	66.8	8	7.1	5		2.1
Receiver15	15	3	0.0	0	66.7	99	-	2.99	10	Snd Lv	57.1		9.6	5		4.6
Receiver16	16	2	0.0		73.7	99		73.7	10	Snd Lvl	66.1		7.6	5		2.6
Receiver18	. 18	2	0.0	0	74.8	99		74.8	10	Snd Lv	66.7		8.1	5		3.1
Receiver19	19	3	0.0	0	6.69	99	10	6.69	10	Snd Lvl	61.5	20	8.4	lr.		3.4
Receiver20	20	2	0.0		75.2	99	10	75.2	10	Snd Lvl	67.4	4	7.8	5		2.8
Receiver22	22	2	0.0	0	76.0	. 66	10	76.0	10	Snd Lvl	71.0	0	5.0	w		0.0
Receiver23	23	3	0.0		71.8	66		71.8	10			3	4.0	r.		-1.0
Receiver24	24	2	0.0		6.92	99	10	6.97	10	Snd Lvl	72.3	8	4.6	r.		4.0
Receiver26	26	2	0.0		9'22	99		9.77	10	Snd Lvl	71.2	~	6.4	5		4
Receiver27	27	3	0.0		72.0	99		72.0	10	Snd Lvl	66.7	7	5.3	S.		0.3
Receiver28	28	2	0.0		8.77	99		8.77	10	Snd Lvl			7.1	5		2.1
Receiver30	30	3	0.0)	7.97	99		7.97	10	Snd Lvl	70.0	0	6.7	ις.		1.7
Receiver31	31	3	0.0	_	76.8	99		76.8	10	Snd Lvl	6.69	CD.	6.9	5		9
Receiver33	33	3	0.0		7.97	99		7.97	10	Snd Lvl	69.1		7.6	35		2.6
Receiver34	34	3	0.0		7.97	99		7.97	10		68.3		8.4	S	-	3.4
Receiver76	92	9	0.0		76.4	99		76.4	10	Snd Lvi	0.69	C	7.4	5		2.4
Receiver37	37	2	0.0		71.9	99		71.9	10	Snd Lvl	6.99	6	5.0	5		0.0
Receiver 38	38	2	0.0	0	73.5	66		73.5	10	Snd Lvl	68.1		5.4	ည		4.0
Receiver39	39	9	0.0	(68.5	99		68.5	10	Snd Lvl	62.8		5.7	5	0	0.7
Receiver40	4	9	0.0		70.0	99		70.0	10		61.8	3	8.2	5	3	3.2
Receiver42	42	4	0.0		73.0	99		73.0	10			.	4.6	5	O-	-0.4
Receiver43	43	4	0.(75.0	99		75.0	10	Snd Lvl	70.9	6	1.1	35	٩	-0.9

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RESULTS: SOUND LEVELS						<u> </u>	I-75 Noise Study	tudy				
Receiver44	44	2	0.0		99	6.69	10	Snd LvI	64.8	5.1	2	0.1
Receiver45	45	2	0.0		99	70.9	10	Snd LvI	64.9	0.9	5	1.0
Receiver46	46	2	0.0	69.5	99	69.5	10	Snd Lvi	64.6	4.9	5	-0.1
Receiver47	47	2	0.0	1	99	70.7	10	Snd Lvl	64.5	6.2	5	1.2
Receiver49	49	9	0.0	73.2	99	73.2	10	Snd Lvl	68.8	4.4	5	9.0
Receiver50	20	9	0.0		99	75.5	10	Snd Lvl	74.7	0.8	5	4.2
Receiver51	51	2	0.0	l	99	74.1	10	Snd LvI	9.69	4.5	5	-0.5
Receiver52	52	2	0.0		99	76.0	10	Snd LvI	75.8	0.2	3	4.8
Receiver54	54	2	0.0	l	99	71.5	10	Snd Lvl	66.7	4.8	r0	-0.2
Receiver55	55	2	0.0	l .	99	71.7	10	Snd Lvl	70.8	6.0	5	1.4
Receiver56	56	9	0.0	69.3	99	69.3	10	Snd LvI	66.7	2.6	ν.	-2.4
Receiver57	22	9	0.0	ŧ	99	70.4	10	Snd LvI	67.8	2.6	2	-2.4
Receiver58	28	2	0.0	1	99	71.0	5	Snd LvI	66.8	4.2	co	-0.8
Receiver59	59	2	0.0		99	72.2	9	Snd Lvl	70.3	1.9	22	-3.1
Receiver60	09	2	0.0		99	74.3	10	Snd Lvl	69.4	4.9	ഹ	-0.1
Receiver61	61	7	0.0		99	75.9	10	Snd Lvl	75.8	0.1	æ	4.9
Receiver63	63	ဖ	0.0	74.3	99	74.3	10	Snd Lvl	69.4	4.9	5	- 0.1
Receiver64	64	ဖ	0.0		99	75.9	10	Snd LvI	75.9	0.0	2	-5.0
Receiver65	65	က	0.0		99	74.7	10	Snd Lvl	6.69	8.4	22	-0.2
Receiver66	99	6	0.0	1	99	75.7	10	Snd LvI	75.7	0.0	22	-5.0
Receiver68	68	9	0.0		99	75.9	10	Snd Lvl	69.5	6.4	5	1.4
Receiver69	69	မ	0.0		99	76.4	10	Snd LvI	76.3	0.1	5	4.9
Receiver70	70	2	0.0		99	75.7	10	Snd Lvl	69.4	6.3	5	1,3
Receiver71	7.1	2	0.0		99	75.6	10	Snd Lvl	75.6	0.0	2	-5.0
Receiver73	73	9	0.0		99	74.4	10	Snd Lvl	68.4	0.9	5	1.0
Receiver74	74	9	0.0		99	76.1	10	Snd Lvl	75.3	0.8	S.	4.2
Receiver76	76	1	0.0		99	74.6	10	Snd Lvl	71.1	3.5	2	1.5
Receiver77	77	9	0.0		99	7.4.7	10	Snd LvI	74.1	9.0	ည	4.4
Receiver80	80	9	0.0		99	71.4	10	Snd Lvl	69.2	2.2	ည	-2.8
Receiver82	82	9	0.0		99	72.0	10	Snd Lvl	71.5	0.5	ಚ	4.5
Receiver84	84	2	0.0		99	9.69	10	Snd LvI	64.1	5.5	5	0.5
Receiver85	85	2	0.0		99	70.3	10	Snd Lvl	6.69	0.4	5	-4.6
Receiver87	87	9	0.0	62.4	99	62.4	10		61.6	0.8	3	-4.2
Receiver88	88	9	0.0		99	64.3	10	1	64.2	0.1	ည	4.9
Dwelling Units	#	# DUs No	Noise Reduction	u.						The state of the s		
		Min	ا Avg		Max							
		쁑		q	윤							
All Selected		198	0.0	4.4	9.6							
All Impacted		186	0.0	4.5	9.6							
All that meet NR Goal		78	2.0	6.7	9.6							

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The Corradino Group								22 September 2014	nber 2014					
John Bucher								TNM 2.5 Calculated with TNM 2.5	d with TN	M 2.5				
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	1-75	I-75 Noise Study	Study								/ <u>.</u>		-	
RUN: Barrier design:	Seg	Seg10 - Livernois INPUT HEIGHTS	ernois GHTS	Seg10 - Livernois to Wattles - Walls INPUT HEIGHTS	Walls				Average	Average pavement type shall be used unless	oe shall be u	sed unless		
ATMOSPHERICS:	99	68 deg F, 5(:0% RH						a State I of a diffe	a State highway agency substantiates the use of a different type with approval of FHWA.	cy substanti	ates the us	, Q	
Receiver														
	No. #DUs		Existing	No Barrier						With Barrier	L			
-		Š	LAeq1h	LAeq1h		Increa	Increase over existing	xisting	Type	Calculated	Noise Reduction	uction		
		····		Calculated	Crit'n	Calculated	ated	Crit'n	Impact	LAeq1h	Calculated	1 Goal	Calculated	lated
	·						<u>.,</u>	Sub'l Inc					minus	va.
		dBA		dBA	dBA	фВ		ф		dBA	dB	др	g g g	
Receiver1	1	-	0.0	79.7		99	7.67	10	Snd Lv	75.7		4.0	5	-1.0
Receiver2	2	ະດ	0.0	75.5		99	75.5	10	Snd Lvl	66.3		9.2	S	4.2
Receiver3	က	4	0.0	75.9		99	75.9	10	Snd Lvl	65.3		10.6	5	5.6
Receiver4	4	သ	0.0	65.3		99	65.3	10		59.2	-	6.1	5	1.1
Receiver5	5	4	0.0	73.8		99	73.8	10	Snd Lvl	64.5		9.3	5	4.3
Receiver6	9	7	0.0	77.2		99	77.2	10		64.9		12.3	5	7.3
Receiver7	7	9	0.0	77.6		99	77.6	10		66.5		11.1	S.	6 1
Receiver8	8	е	0.0	68.1		99	68.1	10	ĺ			7.1	5	2.1
Receiver9	6	4	0.0	80.1		99	80.1	10				9.3	5	4.3
Receiver10	10	4	0.0	82.9		99	82.9	10				9.7	5	4.7
Receiver12	12	4	0.0	82.5		99	82.5	10	!			11.1	2	6.1
Receiver13	13	4	0.0	76.8		99	76.8	10				8.0	5	3.0
Receiver14	4	4	0.0	68.2		99	68.2	10				3.4	5	-1.6
Receiver15	15	က	0.0	82.5		92	82.5	10	.]			12.7	2	7.7
Receiver16	16	5	0.0	77.5		99	77.5	10	Snd Lvl	63.4		14.1	5	9.1
Receiver17	17	C)	0.0	75.3		99	75.3	10	Snd Lvl	63.6	-	11.7	5	6.7
Receiver18	18	4	0.0	77.2		99	77.2	10	Snd Lvl	64.2		13.0	5	8.0
Receiver19	19	7	0.0	82.2		99	82.2	10	Snd Lvl	70.0		12.2	5	7.2
Receiver20	20	2	0.0	76.0		99	76.0	10	Snd Lví	68.6		7.4	5	2.4
Receiver22	22	_	0.0	62.3		99	62.3	10	1	62.3		0.0	5	-5.0
Receiver23	23	-	0.0	65.3		99	65.3	10	-	65.3		0.0	5	5.0
Receiver24	24	τ	0.0	64.4		99	64.4	10		64.4		0.0	5	-5.0
Receiver25	25	_	0.0	63.5		99	63.5	10		63.5		0.0	5	-5.0

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RESULTS: SOUND LEVELS					1-1	I-75 Noise Study	itudy				
Receiver26	26 1	0.0	63.6	99	63.6	10	-	63.6	0.0	5	-5.0
Receiver27	27 1	0.0	63.6	99	63.6	10	******	63.6	0.0	Ω.	-5.0
Receiver 28	28 1	0.0	63.9	99	63.9	10		63.9	0.0	5	-5.0
Receiver29	29	0.0	63.7	99	63.7	10	1	63.7	0.0	သ	-5.0
Receiver30	30 1	0.0	64.2	99	64.2	10	-	64.2	0.0	ស	-5.0
Receiver31	31 1	0.0	63.8	99	63.8	10	1	63.8	0.0	2	-5.0
Receiver32	32 1	0.0	64.2	99	64.2	10		64.2	0.0	гo	-5.0
Receiver33	33	0.0	64.8	99	64.8	10		64.8	0.0	2	-5.0
Receiver34	34	0.0	63.5	99	63.5	10	1	63.5	0.0	2	-5.0
Receiver35	35 1	0.0	63.8	99	63.8	10	H-strain-	63.8	0.0	3	-5.0
	36 1	0.0	63.8	99	63.8	10		63.8	0.0	2	-5.0
	37 1	0.0	63.6	99	63.6	10		63.6	0.0	S.	-5.0
Receiver38	38	0.0	61.1	99	61.1	10	***************************************	61.1	0.0	5	-5.0
Receiver39	39	0.0	55.6	99	55.6	10	-	55.6	0.0	2	-5.0
Receiver40	40	0.0	56.3	99	56.3	10		56.3	0.0	5	5.0
Receiver41	41 1	0.0	55.8	99	55.8	10	-	55.8	0.0	5	-5.0
Receiver43	43 1	0.0	58.1	99	58.1	10		58.1	0.0	5	-5.0
Receiver44	44	0.0	2.09	99	60.7	10	-	2.09	0.0	5	-5.0
	45 1	. 0.0	55.5	99	55.5	10		55.5	0.0	5	-5.0
Receiver46	46 1	0.0	54.1	99	54.1	10	1	54.1	0.0	5	-5.0
Huber Park	85 7	0.0	58.4	51	58.4	10	Snd Lvl	58.4	0.0	5	-5.0
Huber Park	2 2		61.8	51	61.8	10	Snd Lvl	61.8	0.0		-5.0
Huber Park	88	0.0	60.5	51	60.5	10	Snd Lvl	60.5	0.0	5	-5.0
Huber Park	92 9	0.0	49.1	99	49.1	10		49.1	0.0	5	-5.0
Huber Park	93 7	0.0	57.2	99	57.2	10		57.2	0.0	5	-5.0
Dwelling Units	# DNs	Noise Reduction	tion		250000000000000000000000000000000000000						
		Min A	Avg	Max							
		dB dB	2	дB							
All Selected	142		3.8	14.1							
All Impacted	26		8.4	14.1							
All that meet NR Goal	76	6.1	10.3	14.1							

The Corradino Group						22 Septer	22 September 2014			-	
John Bucher						TNM 2.5				÷	
						Calculate	Calculated with TNM 2.5	2.5			
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RIN:	I-75 Noise	•									
BARRIER DESIGN:	INPUT HEI	HEIGHTS					Average p	Average pavement type shall be used unless	shall be use	d unless	
ATMOSPHERICS:	68 60	68 ded E 50% RH					a State high	a State highway agency substantiates the use	substantiate	s the use	
Dominor	8	10,00,116					ol a ullicit	in type with	appiovat of r	UAAY.	
	No. #DUs	Existing	No Barrier					With Barrier			
		LAeq1h	LAeq1h	**************************************	Increase over existing	r existing	Type	Calculated	Noise Reduction	tion	
			Calculated	Crit'n	Calculated	Crit'n	Ħ	LAeq1h	Calculated Goal	Goal	Calculated
						Sub'l Inc					minus
		Va C	VBP	Var	a a	ą		\ <u>0</u>	2	Ç	Goal
		5	נ	ל		<u>a</u>				ap de	gp
Receiver3	7 6	0.0	65.7		66 65.7	10	- Sad Lul	64.3	4.		
Receiver								0.70	4. 4		
Receiver5								04.9	v. c		-5.
Receiver6								62.8	3.0	יא כ	
Receiver7	7	2 0.0	0 68.1	1 66		1 10	Snd Lvl	65.2	2.9		
Receiver8	80	2 0.0	0 64.2	2 66	64.2	2 10	.1.	60.7	3.5		
Receiver9	6	2 0.0		5 66	66.5	5 10	Snd Lvl	63.1	3.4	5	-1.6
Receiver10	10			3 66	5 62.3	3 10		59.4	2.9		-2.1
Receiver11			-		5 65.8	8 10	-	63.3	2.5		-2.5
Receiver12		2 0.0			63.9	9 10		9.09	3.3	5	-1.7
Receiver13						8 10	Snd Lví	64.6	3.2	5	-1.8
Receiver14		2 0.0	08.5	5 66	5 68.5	5 10	Snd Lvl	62.1	6.4	5	1.4
Receiver15					9.69 69.8	8 10	Snd Lvl	65.3	4.5	5	-0.5
Receiver16	16	2 0.0		1 66		1 10	Snd·Lvl	62.3	6.8	5	1.8
Receiver17	17	2 0.0		99 /		7 10	Snd Lvl	65.1	4.6		4.0-
Receiver18		2 0.0				7 10		47.0	5.7	5	0.7
Receiver19						9 10		53.5	4.4	5	-0.6
Receiver20		2 0.0		4 66		4 10		50.2	6.2	5	1.2
Receiver21						3 10	1	57.5	4.8	5	-0.2
Receiver22						10		53.9	5.0	5	0.0
Receiver23	23	2 0.0			55.4	4 10	***************************************	55.6	-0.2	5	-5.2
Receiver24		0.0	46.4	4 66	3 46.4	4 10		46.9	-0.5	5	-5.5

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55 1 0.0 64.0 56 1 0.0 66.8 57 1 0.0 70.8 58 1 0.0 68.1 60 4 60.0 63.1	60.1	10	56.9		5 -1.8
56 1 0.0 66.8 57 1 0.0 70.8 58 1 0.0 68.1 60 60 60 60	64.0	10	57.4		5 1.6
57 1 0.0 70.8 58 1 0.0 68.1 60 4 0.0 63.1	66.8	10 Snd Lvl	60.0	6.8	1.8
58 1 0.0 68.1	70.8	10 Snd Lvl	62.9		5 2.9
4 00 621	68.1	10 Snd Lví	60.7		5 2.4
0.0	63.1	10	56.4		5
	60.8	10	54.6		5 1.2
71.8	71.8	10 Snd Lvl	64.2		5 2.6
1 0.0 66.8	9.99	10 Snd Lvl	60.4		5
63.7	63.7		58.2	5.5	5 0.5
1 0.0 71.9	71.9	10 Snd Lví	64.1		5 2.8
	66.6		59.8	6.8	5
1 0.0	63.7		57.5	6.2	5
Receiver67 67 1 0.0 70.9 66	70.9	10 Snd Lvl	63.4	C)	5

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RESULTS: SOUND LEVELS					π	I-75 Noise					
Receiver68	68 1	0.0	66.3	99	66.3	10 S	Snd Lvl	59.7	6.6	5	1.6
Receiver69	69	0.0	62.7	99	62.7	10		57.1	5.6	5	9.0
Receiver70	70 1	0.0	69.8	99	8.69		Snd Lvl	65.7	4.1	D.	-0.9
Receiver71	71	0.0	65.1	99	65.1	10	-	62.1	3.0	2	-2.0
Receiver72	72 1	0.0	9.99	99	9.99	10 S	Snd Lvl	62.2	4.4	5	9.0-
Receiver73	73 1	0.0	67.3	99	67.3	10 S	Snd LvI	62.9	4.4	S	9.0-
Receiver74	74 1	0.0	6.99	99	6.99	10 \$	Snd Lví	62.8	4.1	5	6.0
	75 1	0.0	66.8	99	8.89	10 S	Snd Lvl	62.8	4.0	5	-1.0
Receiver 7 6	76 1	0.0	66.3	99	66.3	10 S	Snd Lvl	62.6	3.7	ഹ	-1.3
	177	0.0	0.99	99	0.99	10 S	Snd Lvl	62.5	3.5	S.	-1.5
Receiver78	78 1	0.0	65.6	99	65.6	10		62.1	3.5	5	-1.5
Receiver79	79 1	0.0	65.0	99	65.0	10		62.1	2.9	ις:	-2.1
	80 1	0.0	64.8	99	64.8	10		62.1	2.7	2	-2.3
	81 1	0.0	64.5	99	64.5	10		62.2	2.3	2	-2.7
Receiver82	82 1	0.0	63.9	99	63.9	10		61.9	2.0	5	-3.0
Receiver83	83 1	0.0	62.9	99	62.9	10	-	62.0	6.0	22	4.1
Receiver84	84 1	0.0	67.2	99	67.2	10 S	Snd Lvl	6.99	0.3	5	-4.7
	85 1	0.0	63.8	99	63.8	9		63.5	0.3	22	-4.7
	86 1	0.0	63.7	99	63.7	10	77	63.3	4.0	S	4.6
Receiver87	87 1	0.0	62.6	99	62.6	10		62.3	0.3	rC)	4.7
	90 1	0.0	62.1	99	62.1	10	1	61.8	0.3	2	4.7
Receiver91	91 1	0.0	62.4	99	62.4	10		62.1	0.3	5	-4.7
Receiver92	92 1	0.0	62.5	99	62.5	10		62.4	0.1	5	4.9
Receiver93	93 1	0.0	62.4	99	62.4	10	handre	62.2	0.2	3	4.8
Receiver94	94 1	0.0	62.1	99	62.1	10		62.0	0.1	5	4.9
Dwelling Units	# DNs	Noise Redu	Reduction								
		Min 4	Avg	Max			•				
		dB G	фB	фB							
All Selected	137		3.8	7.9							
All Impacted	53	0.3	4.8	7.9							<u> </u>
All that meet NR Goal	35		6.4	7.9					•		

VELS	
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s: sou	
RESULT	

LEVELS \CT:						TNM 2.5	TNM 2.5	ū			_
BARRIER DESIGN:	-75 Noie Seg 11 -	I-75 Noise Study Seg 11 - Wattles t INPUT HEIGHTS	I-75 Noise Study Seg 11 - Wattles to Coolidge - Walls INPUT HEIGHTS	Walis			u witti itemi Average p	with item 2.5 Average pavement type shall be used unless	shall be use	ed unless	
ATMOSPHERICS: 68	68 deg F,	F, 50% RH	_			÷	a State hig of a differ	a State highway agency substantiates the use of a different type with approval of FHWA.	/ substantiat approval of F	es the use	g).
Receiver	.						***************************************			-	***************************************
No.	#DUs	Existing	No Barrier					With Barrier		2	
		LAeq1h	LAeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	ction	
	•		Calculated	Critin	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
	,					Sub'l Inc				•	minus
		dBA	dBA	dBA	dВ	dВ		dBA	q <u>B</u>	ф	dB
Receiver?	1	0.0	65.0	99	9 65.0	0 10	(62.7	2.3		5 -2.
Receiver2 2	-	0.0		99	3 67.8	8 10	Snd Lvl	65.3	2.5	10	5 -2.5
Receiver3 3	1	0.0	69.3	99	3 69.3	3 10		64.7	4.6		5 -0.4
Receiver4 4	1	0.0	69.2	99	3 69.2	2 10	Snd Lvl	65.3	3.9		5 -1.1
Receiver5 5	1	0.0		99		0 10	Snd Lvl	65.4		(0)	5 -1.4
Receiver6	_	0.0				6 10		65.6		6	5 -1.0
	1	0.0						65.6		-	
	-	0.0					- 1	65.8			5 -1.0
	~	0.0			***************************************			65.6	-	0	
	_	0.0			•			65.7			
	-	0.0						66.3			5 -0.9
	****	0.0						66.7			
Receiver13 13		0.0	. 71.2		5 71.2	2 10	Snd Lvl	67.2	4.0		5 -1.0
Receiver14	_	0.0						68.3			
Receiver15	_	0.0						69.1	4.3	~	5 -0.7
Receiver16 · 16	1	0.0	74.6			6 10		70.2	4.4	1	5 -0.6
Receiver17 17	1	0.0	75.8			8 10	Snd Lvi	72.5		~	5 -1.7
Receiver18 18	1	0.0	76.0	99	3 76.0	0 10	Snd Lvl	74.2	1.8	~	5 -3.2
Receiver19 19	_	0.0				0 10	L	75.5	0.5	10	5 4.5
	-	0.0						75.6			
Receiver21	_	0.0				1 10		72.6			5 -2.5
	_	0.0			75,			74.8			5 -4.3
Receiver23 23	_	0.0	73.9	99	73.	9 10	Snd Lvl	70.4	3.5		5 1.5

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RESULTS: SOUND LEVELS						1-1	I-75 Noise Study	Study				
Receiver24	24	_	0.0	73.9	99	73.9	10	Snd Lvl	69.5	4.4	သ	9.0-
Receiver25	22	_	0.0	70.3	99	70.3	10	Snd Lvl	67.3	3.0	ည	-2.0
Receiver26	56	-	0.0	68.2	99	68.2	10	Snd Lvl	62.1	6.1	ಭ	1.1
Receiver27	27	***	0.0	65.6	99	65.6	10		63.0	2.6	ις.	-2.4
Receiver28	28	\	0.0	63.5	99	63.5	10		59.2	4.3	C)	-0.7
Receiver30	30	-	0.0	67.5	99	67.5	10	Snd LvI	64.5	3.0	Ω	-2.0
Receiver31	31	1	0.0	68.9	99	68.9	10	Snd Lvl	65.3	3.6	c)	4.
Receiver32	32	_	0.0	67.3	99	67.3	19	Snd Lvl	62.9	4.4	SC S	9.0-
Receiver33	33	_	0.0	63.5	99	63.5	10		59.6	3.9	5	1.1
Receiver34	34	-	0.0	70.0	99	70.0	10	Snd Lvl	65.7	6.4	5	-0.7
Receiver35	32	-	0.0	62.9	99	62.9	10		61.0	6.4	5	-Q.1
Receiver36	36	-	0.0	70.4	99	70.4	10	Snd Lvl	65.5	0.4	5	٥. 1
Receiver38	38	1	0.0	71.7	99	7.1.7	10	Snd Lvl	66.2	5.5	5	0.5
Receiver39	39	-	0.0	70.5	99	70.5	10	Snd Lvl	64.9	5.6	ις.	9.0
Receiver40	40	_	0.0	62.4	99	62.4	10		57.3	5.1	ις.	0.1
Receiver41	41	-	0.0	71.1	99	71.1	10	Snd Lvl	65.8	5.3	S	0.3
Receiver42	42	-	0.0	707	99	7.07	10	Snd Lvl	65.1	5.6	D.	9.0
Receiver43	43	_	0.0	70.0	99	70.0	10	Snd Lvl	64.7	5.3	22	0.3
Receiver44	44	'	0.0	67.4	99	67.4	10	Snd Lvl	62.8	4.6	5	-0.4
Receiver45	45	₹***	0.0	67.2	99	67.2	10	Snd Lvl	63.0	4.2	£	-0.8
Receiver46	46	1	0.0	67.2	99	67.2	10	Snd Lvl	62.9	4.3	ഹ	-0.7
Receiver47	47	-	0.0	66.1	99	66.1	10	Snd Lvl	62.1	4.0	ഹ	-1.0
Receiver49	49	1	0.0	65.8	99	65.8	10		62.0	3.8	5	-1.2
Receiver50	20	-	0.0	65.0	99	65.0	10	ļ. -	61.6	3.4	5	-1.6
Receiver51	51	1	0.0	64.6	99	64.6	10	220 700-000 400	61.3	3.3	£	-1.7
Receiver52	52	1	0.0	65.2	99	65.2	10	-	61.9	3.3	သ	-1.7
Receiver53	53	1	0.0	65.6	99	65.6	10		62.4	3.2	S	-1.8
Receiver54	54	1	0.0	64.3	99	64.3	10	1	61.9	2.4	ഹ	-2.6
Receiver55	22	1	0.0	62.7	99	62.7	19	-	61.3	1.4	5	-3.6
Receiver57	57	8	0.0	71.1	99	71.1	10	Snd Lvl	66.5	4.6	2	-0.4
Receiver58	28	9	0.0	75.0	99	75.0	10	Snd Lvl	66.1	8.9	Ω.	3.9
Receiver59	69	80	0.0	76.5	99	76.5	10	Snd Lvl	65.7	10.8	2	5.8
Receiver60	09	9	0.0	87.8	99	67.8	10	Snd Lvl	62.4	5.4	5	0.4
Receiver61	61	4	0.0	67.9	99	6.79	10	Snd Lvl	63.5	4.4	5	-0.6
Receiver62	62	4	0.0	64.2	99	64.2	10		56.6	7.6	5	2.6
Receiver63	63	4	0.0	62.3	99	62.3	10		59.7	2.6	5	-2.4
Receiver64	49	4	0.0	58.8	99	58.8	10	B0 80 80 80 80	58.6	0.2	5	-4.8
Receiver65	92	4	0.0	60.4	99	60.4	10	-	60.4	0.0	သ	-5.0
Receiver66	99	4	0.0	62.2	99	62.2	10		6.09	1,3	5	-3.7
Receiver67	67	4	0.0	66.4	99	66.4	10	Snd Lvi	63.5	2.9	2	-2.1
Receiver68	89	4	0.0	73.2	99	73.2	10	Snd Lvi	64.4	8.8	5	3.8
HOUSE TO SEE THE LOCATION OF COLUMN								•				

I:\PROJECTS\4207\NO\SE\TNM RUNS\TNM RE - EVALUATION\Seg11 New

RESULTS: SOUND LEVELS						Ξ	I-75 Noise Study	Study				
Receiver69	69	4	0.0	75.6	99	75.6	10	Snd Lvl	64.6	11.0	c)	6.0
Receiver70	70	4	0.0	76.8	99	76.8	10	Snd LvI	67.0	9.6	5	4.8
Receiver71	7.1	4	0.0	75.4	99	75.4	10	Snd Lvl	67.3	8.1	5	3.1
Receiver72	72	4	0.0	66.4	99	66.4	10	Snd Lvl	63.0	3.4	22	7.
Receiver73	73	4	0.0	57.2	99	57.2	10	1	56.7	0.5	5	4.5
Receiver74	74	4	0.0	54.8	99	54.8	10	1	53.1	1.7	2	-3.3
Receiver75	75	4	0.0	54.0	99	54.0	10]	53.3	7.0	2	-4.3
Receiver76	92	4	0.0	54.9	99	54.9	10		54.4	0.5	S	4.5
Receiver77	2.2	4	0.0	59.8	99	59.8	10		59.6	0.2	2	4.8
Receiver87	87	4	0.0	63.2	99	63.2	10		59.1	4.1	ည	6.0-
Receiver89	89	ဇ	0.0	66.7	99	66.7	10	Snd LvI	62.9	3.8	2	-1.2
Receiver90	06	င	0.0	67.5	99	67.5	10	Snd LvI	6.99	9.0	ಬ	4.4
Firefighter Park	92	4	0.0	69.3	99	69.3	10	Snd Lv!	63.9	5.4	ಬ	0.4
Firefighter Park	93	4	0.0	69.2	99	69.2	9	Snd Lvi	63.9	5.3	5	0.3
Firefighter Park	94	4	0.0	70.1	99	70.1	10	Snd Lvl	64.4	5.7	5	0.7
Firefighter Park	95	4	0.0	70.8	99	70.8	10	Snd Lvl	64.4	6.4	2	1.4
Firefighter Park	96	4	0.0	71.6	99	71.6	10	Snd Lvl	65.4	6.2	5	1.2
Firefighter Park	6	4	0.0	72.1	99	72.1	10	Snd Lvl	0.99	6.1	2	1.1
Firefighter Park	86	4	0.0	72.2	99	72.2	10	Snd Lvl	66.2	6.0	5	1.0
Firefighter Park	66	4	0.0	72.1	99	72.1	10	Snd Lvl	66.1	6.0	5	1.0
Firefighter Park	100	4	0.0	66.7	99	66.7	10	Snd Lvl	62.4	4.3	£C.	-0.7
Dwelling Units	**	# DUs	Noise Rec	Reduction								
			Min	Avg	Max							
		-	dВ	dВ	фB							
All Selected		194	0.0	4.1	11.0							
All Impacted		137	0.3	4.7	11.0							
All that meet NR Goal		62	5.1	6.8	11.0							

The Corradino Group							7	22 September 2014	ber 2014					
John Bucher							- 0	TNM 2.5 Calculated	TNM 2.5 Calculated with TNM 2.5	12.5			~~	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: RARRIER DESIGN	I-75 I Seg1	I-75 Noise Study Seg12 - Coolidge	tudy olidge to	I-75 Noise Study Seg12 - Coolidge to Adams - Build	piin					4	= 40 = 40 = 40		·	
			2						Average p a State hij	Average pavernent type snan be used unless a State highway agency substantiates the use	e snan be us y substantia	tes the us	đi.	
ATMOSPHERICS:	P 89	68 deg F, 50% RH	0% RH						of a differ	of a different type with	approval of FHWA	FHWA.		
/er		Ιſ	i t											
Name	No. #DUs		gu	No Barrier					•	With Barrier				
		LAeq1		LAeq1h	***************************************	Increa	Je.	. [Туре	Calculated	Noise Reduction	ıction		
			<u> </u>	Calculated	Crit'n	Calculated			Impact	LAeq1h	Calculated	Goal	Calculated	ated
		-					<i>n</i>	Sub l'uc					minus Goal	
		dBA		dBA	dBA	фВ	Р	dB		dBA	фВ	BB BB	фВ	
Receiver1	1	_	0.0	64.5		99	64.5	10		64.3		0.2	2	4.8
Receiver2	2	₹~~	0.0	6.99		99	6.99	10	Snd Lvl	6.99		0.0	5	-5.0
Receiver3	3	1	0.0	62.5		99	62.5	10		62.5		0.0	2	-5.0
Receiver4	4	÷	0.0	62.8		99	62.8	10		62.6		0.2	ιΩ	4.8
Receiver5	5	_	0.0	65.3		99	65.3	10	-	65.3		0.0	2	-5.0
Receiver6	9	-	0.0	67.0		99	67.0	10	Snd Lví	66.8		0.2	2	4.
Receiver7	7	-	0.0	69.3		99	69.3	10	Snd Lví	0.69		0.3	. 2	4.7
Receiver8	00	-	0.0	73.7		99	73.7	10	Snd Lvl	72.0		1.7	5	-3.3
Receiver10	10	-	0.0	69.2		99	69.2	10	Snd Lvl	64.1		5.1	2	0.1
Receiver11	11	-	0.0	6.69		99	69.9	10	Snd Lvl	65.3		4.6	2	4.0-
Receiver12	12	-	0.0	71.7		99	71.7	10	Snd Lvl	66.1		5.6	22	9.0
Receiver13	13	-	0.0	69.9		99	69.9	10	Snd Lvl	66.5		3.4	2	-1.6
Keceiver14	14	-	0.0	68.5		99	68.5	10	Snd Lvl	66.6		1.9	2	-3.1
Receiver15	15		0.0	67.4		99	67.4	10	Sud Lw	65.4		2.0	2	-3.0
Kecelver 16	9 !	_	0.0	2.70		9 3	7.79	2	Snd Lvi	65.1			2	-2.9
Receiver1/	17	-	0.0	66.2		99	66.2	9	Snd Lvi	63.9		2.3	5	-2.7
Receiver18	18	-	0.0	59.2		99	59.2	10	1	59.2		0	2	-5.0
Receiver19	19	-	0.0	55.9		99	55.9	9	-	55.9	:	0	5	-5.0
Receiver20	20	-	0.0	56.9		99	56.9	10	hanaval	56.9		0.0	5	-5.0
Receiver21	21	_	0.0	61.8		99	61.8	10	-	61.8		0.0	5	-5.0
Receiver22	22	~~	0.0	56.9		99	56.9	10	1	56.9	-	0.0	5	-5.0
Receiver23	23	-	0.0	62.7		တ	62.7	10		62.7		0.0	5	-5.0
Receiver24	24	\dashv	0.0	61.2	99	9	61.2	10		61.2	0.0	0	5	-5.0

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RESULTS: SOUND LEVELS						1-75 Noise Study	tudy				
Receiver25	25	1 0.0			59.4	10	-	59.4	0.0	2	-5.0
Receiver26	56	- 0.			59.5	10	7244	59.5	0.0	52	5.0
Receiver27		1 0.0			58.6	10		58.6	0.0	3	-5.0
Receiver28	28	1 0.0		.2 66	57.2	9		57.2	0.0	5	-5.0
Receiver29	29	1.0			57.7	10		57.7	0.0	2	-5.0
Receiver30	30	1 0.0			59.2	10		59.2	0.0	3	-5.0
Receiver31	31	1 0.(64.4	10		64.4	0.0	5	-5.0
Receiver32	32	1 0.0			67.1	10	Snd Lvl	67.0	0.1	5	4.9
Receiver33	33	1 0.0			65.6	10		65.3	0.3	2	4.7
Receiver34	34	1 0.0			66.5	10	Snd LvI	66.2	0.3	£0	4.7
Receiver35	35	1 0.0			64.6	10	1956	64.2	0.4	S	4.6
Receiver36	36	1 0.0			66.3	10	Snd Lvl	65.0	1.3	သ	-3.7
Receiver37	37	1 0.0			63.9	10	-	61.0	2.9	2	-2.1
Receiver38	38	1 0.0		64.8 66	64.8	10		61.0	3.8	5	-1.2
Receiver39	39	1 0.0			65.3	10		60.8	4.5	5	-0.5
Receiver40	40	1 0.0		.4 66	67.4	10	Snd Lvl	60.4	7.0	5	2.0
Receiver41	41	0.0			65.0	10	}	60.2	4.8	5	-0.2
Receiver42	42	1 0.0			59.1	10		54.8	4.3	5	-0.7
Receiver43	43	1 0.0	56.7		56.7	10		55.3	1.4	22	-3.6
Receiver44	44	1 0.0			57.1	10		56.1	1.0	3	4.0
Receiver45		1 0.0			56.0	9		53.5	2.5	c)	-2.5
Receiver46	46	0.0			72.0	10	Snd Lvl	. 6.39	5.1	5	0.1
Receiver47	47	0.0			72.5	10	Snd Lvl	6.69	2.6	2	-2.4
Receiver48	48	1 0.0	71.7		7.17	9	Snd LvI	68.4	3.3	C)	-1.7
Receiver49	49	1 0.C		4 66	69.4	9	Snd Lvl	64.6	4.8	5	-0.2
Receiver50		1 0.0			63.2	10		59.2	4.0	ഹ	-1.0
Receiver51	51	1 0.0	61.9		61.9	10	1	58.0	3.9	2	1.1
Receiver52		1 0.C		99 2	70.7	10	Snd Lvl	64.4	6.3	32	1.3
Receiver53		1 0.0			9.99	10	Snd Lvl	60.7	5.9	5	0.9
Receiver54		1 0.0	67.2		67.2	10	Snd LvI	63.2	4.0	3	-1.0
Receiver55		1 0.0			75.9	10	Snd Lví	68.4	7.5	2	2.5
Receiver56	56	0.0		1 66	68.1	10	Snd Lvl	67.1	1.0	c)	4.0
Dwelling Units	# DUs	Noise	Reduction			The state of the s					
		Min	Avg	Max							
		ЯВ	ФВ	фB							
All Selected	55	5 0.0		2.0 7.5							
All Impacted	25			1 7.5							
All that meet NR Goal	7		6.1			;					_

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John Bucher								zz septer TNM 2.5	22 September 2014 TNM 2.5		,			
								Calculate	Calculated with TNM 2.5	W 2.5			_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 N Sent?	I-75 Noise Study Sen12a - Coolide	udy Jidae to	I-75 Noise Study Sen12a - Coolidge to North Limit - Walls	nit . Wall	a	•				. **			
BARRIER DESIGN:	INPU	INPUT HEIGHTS	ATS						Average	Average pavement type shall be used unless	e shall be us	sel unles	W	
ATMOSPHERICS:	68 de	68 deg F, 50%	0% RH						a State h	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantia n approval of	ates the u FFHWA.	Se	
Receiver														
Name	No. #DUs	Existing	Г	No Barrier						With Barrier				
		LAeq1h		LAeq1h		Incr	Increase over existing	existing	Type	Calculated	Noise Reduction	uction		
			<u>පී</u>	Calculated	Crit'n	Calc	Calculated	Crit'n	Impact	LAeq1h	Calculated Goal	Goal	Calc	Calculated
								Sub'l Inc					minus Goal	sn –
		dBA	dBA	A	dBA	дB		dB		dBA	ф	dВ	쁑	
Receiver16	16	1	0.0	63.3		99	63.3	10		63.1		0.2	5	4.8
Receiver17	17	_	0.0	63.4		99	63.4	10		63.2		0.2	2	4.8
Receiver18	18	1	0.0	61.8		99	61.8	10		61.8		0.0	rs.	-5.0
Receiver19	19	-	0.0	64.7		99	64.7	10		64.7		0.0	5	-5.0
Receiver20	20	—	0.0	51.1		99	51.1	10		. 51.0		0.1	r)	4.9
Receiver21	21	1	0.0	52.1		99	52.1	10	-	51.9		0.2	2	4.8
Receiver22	22	-	0.0	61.0		99	61.0	10		60.9		0.1	5	-4.9
Receiver23	23	_	0.0	64.4		99	64.4	10	1	64.4		0.0	5	-5.0
Receiver24	24	_	0.0	63.3		99	63.3	10		63.3		0.0	5	-5.0
Receiver25	25	_	0.0	56.5		99	56.5	10	-	56.4		0.1	5	4
Receiver26	26	-	0.0	54.2		99	54.2	10	-	54.1		0.1	5	4.9
Receiver27	27	-	0.0	56.0		99	56.0	10	1	55.9		0.1	5	-4.9
Receiver28	28	1	0.0	54.0		.99	54.0	10		53.8		0.2	2	4.8
Receiver29	29	1	0.0	53.2		99	53.2	10		52.1		1.1	52	-3.9
Receiver30	30	1	0.0	52.0		99	52.0	10		51.0		1.0	လ	4.0
Receiver31	31	_	0.0	51.2		99	51.2	10		50.2		1.0	2	4.0
Receiver32	32	_	0.0	48.3		99	48.3	10	-	48.5		-0.2	ۍ	-5.2
Receiver33	33	1	0.0	54.3		99	54.3	10		54.1		0.2	£.	4.8
Receiver34	34	1	0.0	65.8		99	65.8	10	1	65.2		9.0	5	4.4
Receiver35	35	-	0.0	55.8		99	55.8	10		53.1		2.7	2	-2.3
Receiver37	37	₩.	0.0	50.6		99	50.6		-	50.4		0.2	5	-4.8
Receiver38	38	_	0.0	69.2		99	69.2	10	Snd Lvl	68.5		0.7	2	4.3
Receiver39	39	-	0.0	70.8		99	70.8	10	Snd Lvi	69.3		1.5	5	-3.5

I:\PROJECTS\4207\NOISE\TNM RUNS\TNM RE - EVALUATION\Special Runs\Seg12a Adams

RESULTS: SOUND LEVELS						1-1	I-75 Noise Study	Study				
Receiver40	40	1 0.0		73.6	99	73.6	10	Snd Lvf	70.3	3.3	S	-1.7
Receiver42	42	1 0.0		75.1	99	75.1	10	Snd Lvl	68.2	6.9	5	1.9
Receiver44	44	1 0.0		61.5	99	61.5	10	1	57.6	3.9	9	-1.1
Receiver45	45	1 0.0		62.5	99	62.5	10		62.4	0.1	Ċ	4.9
Receiver46	46	1 0.0		64.6	99	64.6	10		64.1	0.5	5	4.5
Receiver47	47	1 0.0		62.8	99	62.8	10	1	62.4	0.4	D.	4.6
Receiver48	48	1 0.0		1.8	99	61.8	10	1	61.5	0.3	လ	4.7
Receiver49	49	1 0.0		55.1	99	55.1	10		55.1	0.0	ည	-5.0
Receiver50	20	1 0.0		9.9	99	56.6	10	******	55.3	1.3	သ	-3.7
Receiver51	51	1 0.0		3.3	99	53.3	10	-	51.1	2.2	ιĊ	-2.8
Receiver52	52	1 0.0		57.7	99	57.7	4	***************************************	56.2	1.5	5	-3.5
Receiver53	53	1 0.0		6.2	99	56.2	10	w.essa	56.0	. 0.2	5	4.8
Receiver54	54	1 0.0		6.0	99	50.9	10		51.2	-0.3	5	5.3
Receiver55	55	1.0		6.6	99	49.9	10		50.0	-0.1	5	-5.1
Receiver56	56	1 0.0		74.1	99	74.1	10	Snd LvI	67.1	7.0	5	2.0
Receiver57	57	1 0.0		68.0	99	68.0	10	Snd LvI	61.8	6.2	သ	1.2
Receiver58	28	1 0.0	***************************************	61.7	99	61.7	10		58.3	3.4	သ	-1.6
Receiver59	59	1.0		0.1	99	60.1	10		57.3	2.8	5	-2.2
Receiver60	09	1 0.0		54.3	99	54.3	10	-	54.4	-0.1	5	-5.1
Receiver61	61	1 0.0		0.1	99	60.1	10	-	56.2	3.9	2	-1.1
Receiver63	63	1 0.0		4.8	99	64.8	10		64.8	0.0	£	-5.0
Receiver65	65	1 0.0		5.9	99	75.9	10	Snd Lvl	69.8	6.1	2	1.1
Receiver66	99	1 0.0		67.7	99	67.7	19	Snd Lvl	61.2	6.5	5	1.5
Receiver67	29	1 0.0		54.2	99	54.2	9		54.2	0.0	5	5.0
Receiver68	89	1 0.0		59.8	99	59.8	10	1	56.3	3.5	2	-1.5
Receiver69	69	1 0.0		3.1	99	63.1	10	1	58.6	4.5	Ŋ	-0.5
Receiver70	70	1 0.0		3.4	99	53.4	10		53.6	-0.2	2	-5.2
Receiver71	71	1 0.0		8.1	99	68.1	10	Snd Lvl	. 60.5	7.6	S.	2.6
Receiver72	72	1 0.0		53.5	99	53.5	10	1	53.6	-0.1	5	-5.1
Receiver73	73	1 0.0		3.5	99	63.5	10		59.5	4.0	ഹ	-1.0
Receiver74	74	1 0.0		3.4	99	53.4	9	ļ	52.6	0.8	£	4.2
Receiver75	75	1 0.0		3.9	99	73.9	10	Snd Lví	65.3	8.6	ഹ	3.6
Receiver76	76	1 0.(0.7	99	7.07	10	Snd Lvl	61.6	9.1	5	4.1
Receiver77	77	1 0.0		65.8	99	65.8	10	***************************************	58.4	7.4	5	2.4
Receiver78	78	1 0.0		55.2	99	55.2	10	1	55.0	0.2	ഹ	4.8
Receiver79	79	1 0.0		60.4	99	60.4	10		55.0	5.4	5	0.4
Receiver80	80	1 0.0		63.0	99	63.0	10	777	56.6	6.4	5	1.4
Receiver81	81	1 0.0		69.4	99	69.4	10	Snd Lvl	60.4	0.6	5	4.0
Receiver82	82	1 0.0		75.0	99	75.0	10	Snd Lvl	65.7	9.3	5	4.3
Receiver83	. 83	1 0.0		0.0	99	70.0	10	Snd LvI	62.4	9.7	5	2.6
Receiver84	84	1 0.0		63.4	99	63.4	10		9'29	5.8	S	0.8
PBO (ECTS)4207/NOISE/TNM BIJNS/TNM	П	- EVALUATION/Snec	Point Rune	Soutta Ad	ame.							

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							201001	Oracy				
Receiver86	98	-	0.0	68.9	99	68.9	9	Snd Lvl	60.3	8.6	2	3.6
Receiver87	87	~	0.0	67.5	99	67.5	10	Snd Lvl	63.7	3.8	£	-1.2
Receiver88	88		0.0	52.9	99	55.9	10	-	55.3	9.0	c)	4.4
Receiver89	68	+	0.0	66.3	99	66.3	10	Snd Lvl	60.4	5.9	2	0.9
Receiver90	-06	-	0.0	69.2	99	69.2	10	Snd Lvl	63.2	6.0	S.	1.0
Receiver92	92	1	0.0	74.3	99	74.3	10	Snd Lvl	64.0	10.3	Ş	5.3
Receiver94	94	-	0.0	62.5	99	62.5	10		60.5	2.0	2	-3.0
Receiver95	92	_	0.0	62.3	99	62.3	5		57.8	4.5	52	-0.5
Receiver96	96	<u> </u>	0.0	54.6	99	54.6	10	-	54.1	0.5	22	-4.5
Receiver97	97	-	0.0	53.5	99	53.5	10	AL BANK CO	53.0	0.5	വ	-4.5
Receiver98	86	-	0.0	64.9	99	64.9	5		63.6	1.3	വ	-3.7
Receiver99	66	_	0.0	59.5	99	59.5	10		56.6	2.9	5	-2.1
Receiver100	100	-	0.0	59.5	99	59.5	10		56.5	3.0	5	-2.0
Receiver101	101	4	0.0	29.0	99	59.0	10		56.1	2.9	5	-2.1
Receiver102	102	-	0.0	53.8	99	53.8	10		53.7	0.1	D.	-4.9
Receiver103	103	_	0.0	58.6	99	58.6	10		57.0	1.6	2	-3.4
Receiver104	104	1	0.0	59.9	99	59.9	10		57.0	2.9	ις.	-2.1
Receiver105	105	-	0.0	55.0	99	55.0	10		54.4	9.0	5	4.4
Receiver106	106	-	0.0	57.2	99	57.2	10		57.0	0.2	5	4.8
Receiver107	107	-	0.0	62.8	99	62.8	10		62.4	0.4	5	4.6
Receiver108	108	-	0.0	63.0	99	63.0	10	***************************************	62.3	0.7	5	4.3
Receiver109	109	7	0.0	62.5	99	62.5	10	-	61.9	9.0	5	4.4
Receiver110	110	1	0.0	51.6	99	51.6	10		51.2	0.4	5	4.6
Receiver111	111	7	0.0	58.4	99	58.4	10		57.5	6.0	5	4.
Receiver112	112	_	0.0	56.3	99	56.3	10		54.7	1.6	5	-3.4
Receiver113	113	1	0.0	51.8	99	51.8	10	-	51.7	0.1	S.	4.9
Receiver114	114	-	0.0	52.1	99	52.1	10	200000000	51.8	0.3	5	7.4
Receiver115	115	1	0.0	55.1	99	55.1	10	******	55.2	-0.1	2	Ļ.5.
Receiver116	116	_	0.0	57.0	99	57.0	10		56.9	0.1	9	4.9
Receiver117	117	1	0.0	50.1	99	50.1	10		. 49.7	0.4	5	4.6
Receiver118	118	7	0.0	55.8	99	55.8	10]	55.4	0.4	ഹ	4.6
Receiver119	119	-	0.0	52.2	99	52.2	10		52.0	0.2	5	4.8
Receiver120	120	~	0.0	49.1	99	49.1	10		49.1	0.0	5	-5.0
Receiver121	121	1	0.0	52.7	99	52.7	10		52.6	0.1	2	4.9
Receiver126	126	-	0.0	54.7	99	54.7	10		54.5	0.2	Ω.	4.8
Receiver127	127	1	0.0	51.8	99	51.8	10		51.8	0.0	5	-5.0
Receiver128	128	_	0.0	52.1	99	52.1	10	1	52.1	0.0	ಭ	-5.0
Receiver129	129	1	0.0	52.6	99	52.6	10	-	52.2	0.4	2	4.6
Receiver130	130	1	0.0	56.3	99	56.3	10	***************************************	55.2	1.1	ಬ	9.5-
Receiver131	131	۳-	0.0	56.2	99	56.2	10		54.0	2.2	S.	-2.8
Receiver132	132	₹	0.0	61.2	99	61.2	10		59.2	2.0	ഹ	-3.0
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RESULTS: SOUND LEVELS

					<u></u>	I-/5 Noise Study	Study				
Receiver133	133	1 0.0	53.6	99 6	53.6	10		53.7	-0.1	ß	5.1
Receiver134	134	1 0.0	55.4	4 66	55.4	10	1	55.0	0.4	5	-4.6
Receiver135	135	1 0.0	6.09	99 6	6.09	10		56.8	4.1	2	-0.9
Receiver136	136	1 0.0	62.4	99	62.4	10		67.9	4.5	5	-0.5
Receiver137	137	1 0.0	54.1	99	54.1	10	Manage	53.6	0.5	5	4.5
Receiver138	138	1 0.0	58.1	1 66	58.1	10		55.9	2.2	5	-2.8
Receiver140	140	1 0.0	70.6	99	70.6	10	Snd Lv1	70.6	0.0	2	-5.0
Receiver142	142	1 0.0	69.7	99 /	69.7	10	Snd LvI	69.7	0.0	5	-5.0
Receiver143	143	1 0.0	67.4	4 66	67.4	10	Snd Lv!	67.4	0.0	5	5 .0
Receiver144	144	1 0.0	68.4	99	68.4	10	Snd Lvi	68.4	0.0	C)	-5.0
Receiver145	145	1 0.0	68.8	99 86	68.8	10	Snd LvI	68.7	0.1	S	4.9
Receiver146	146	1 0.0	68.1	1 66	68.1	10	Snd Lvl	68.1	0.0	5	-5.0
Receiver147	147	1 0.0	0.99 66.0	99 (0.99	10	Snd Lvl	66.0	0.0	S.	-5.0
Dwelling Units	# DUs	Nois	e Reduction								
		Min	Avg	Мах							,
		ВÞ	dВ	дB							
All Selected	118	8 -0.3	3 2.0	10.3							
All Impacted	2	26 0.0	4.8	3 10.3		4.					
All that meet NR Goal	~	19 5.4	7.4	10.3							

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The Corradino Group							52	22 Septem	22 September 2014	: 				
							=ී යී	ıvı 4.3 Iculated	Calculated with TNM 2.5	12.5				
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 Noise Square La	-75 Noise Square Lake Inte	I-75 Noise Square Lake Interchange INDIT DEIGHTS	-					,	, to the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 9 1		
ATMOSPHEDICS.			, a						State his	a State highway agency substantiates the use	y substantiat	es the us	ds	
Alifornia.	00 00	0,00,11	5						ol a unier	ol a dinerent type with approval of FRWA.	approval of r	YAY.		
Keceiver Name No.	#DUs	Existing	No Barrier	rrier						With Barrier				
		LAeq1h		٩		Increase over existing	ver exi		Туре	Calculated	Noise Reduction	tion		
			Calculated		Crit'n	Calculated	5		Impact	LAeq1h	Calculated	Goal	Calculated	ated
							<u></u>	Sub'l Inc					mínus Goal	
		dBA	dBA	ਰ	dBA	AB	쁑			dBA	фB	ф	фВ	
900	1 5		0.0	72.4	99		72.4	10	Snd Lvl	72.4	0.0		5	-5.0
GC3	2 5		0.0	63.1	66		63.1	10		63.1	0.0		22	-5.0
GC2	3 5		0.0	57.0	66		57.0	10	1	57.0	0.0		5	-5.0
GC1	4		0.0	51.2	99		51.2	10	-	51.2	0.0		C)	-5.0
Receiver5	5 4		0.0	50.3	99		50.3	10	1	50.3	0.0		2	-5.0
Receiver6	6 4		0.0	48.9	66		48.9	10		48.9	0.0		2	-5.0
Receiver7			0.0	50.3	99		50.3	10	1	50.3			5	-5.0
Receiver8	8		0.0	50.0	99		50.0	19	ŀ	50.0			5	-5.0
iver9			0.0	54.0	99		54.0	10		54.0	0.0		5	-5.0
	10 5		0.0	9.09	99		60.6	10		9.09			5	-5.0
	12 1	,	0.0	0.99	99		0.99	10	Snd Lvl	66.0			5	-5.0
	13		0.0	65.1	99		65.1	10		65.1			5	-5.0
	14		0.0	62.5	99		62.5	9	1	62.5			2	-5.0
	15		0.0	61.1	99		61.1	4	мами	61.1			S	-5.0
	16		0.0	62.4	99		62.4	9		62.4	0.0		5	-5.0
Receiver17	17	0	0.0	61.5	. 66		61.5	10		61.5	0.0		5	-5.0
Receiver18	18 1		0.0	60.7	99		60.7	10	***************************************	2.09	0.0		5	-5.0
Receiver19	19 1	כ	0.0	59.8	99		59.8	10	-	59.8	0.0		5	-5.0
	20 1	٥	0.0	59.4	99		59.4	10		59.4	0.0		5	-5.0
	21 1	O	0.0	59.1	99		59.1	10		59.1	0.0		5	-5.0
	22 1		0.0	58.0	99		58.0	10	,	58.0			5	-5.0
	23	9	0.0	57.5	99		57.5	10	***************************************	57.5			2	-5.0
Receiver24	24 1		0.0	55.8	99		55.8	9		55.8	0.0		2	-5.0

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RESULTS: SOUND LEVELS

I-75 Noise

Receiver25	25	-	0.0	55.9	99	55.9	10	***************************************	55.9	0.0	9	-5.0
Receiver26	56	-	0.0	55.1	99	55.1	10	1	55.1	0.0	5	-5.0
Receiver27	27	~	0.0	54.4	99	54.4	10	and and format	54.4	0.0	5	-5.0
Receiver28	28	۲	0.0	53.5	99	53.5	10	1111	53.5	0.0	သ	-5.0
Receiver29	29	~	0.0	47.4	99	47.4	10	-	47.4	0.0	5	-5.0
Receiver30	30		0.0	49.8	99	49.8	10	1	49.8	0.0		-5.0
Receiver31	31	\ \ \ \ \	0.0	50.1	99	50.1	10		50.1	0.0	5	-5.0
Receiver32	32	7	0.0	58.0	99	58.0	10		58.0	0.0	2	-5.0
Receiver33	33	-	0.0	57.1	99	57.1	10		57.1	0.0	5	5.0
Receiver34	34	-	0.0	57.7	99	57.7	10		57.7	0.0	5	-5.0
Receiver35	35	-	0.0	58.1	99	58.1	10		58.1	0.0	5	-5.0
Receiver37	37	-	0.0	56.5	99	56.5	10	Leave	56.5	0.0	2	-5.0
Receiver38	38	1	0.0	56.4	99	56.4	10	HENDEN	56.4	0.0	5	-5.0
Receiver39	39	-	0.0	56.3	99	56.3	10		56.3	0.0	2	5.0
Receiver40	40	-	0.0	52.3	99	52.3	10		52.3	0.0	2	-5.0
Receiver41	41	-	0.0	52.7	99	52.7	10		52.7	0.0	5	-5.0
Receiver43	43	_	0.0	57.2	99	57.2	10]	57.2	0.0	ĸ	-5.0
Dwelling Units	# D(Is	Js Noise	se Reduction	ion								
		Min	Avg		Max							
		쁑	쁑		畏					•		
All Selected		72	0.0	0.0	0.0						v	
All Impacted		9	0.0	0.0	0.0							
All that meet NR Goal	-	0	0.0	0.0	0.0							

APPENDIX G SOUND LEVEL RESULTS FOR ALL RECEIVERS WITH OPTIMIZED NOISE WALLS

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RESULTS: SOUND LEVELS							<u>'T</u>	I-75 Noise Study	Study					
The Corradino Group John Bucher							2 5	23 Septen TNM 2.5	23 September 2014 TNM 2.5					
RESULTS: SOUND LEVELS							ΰ	alculate	Calculated with TNM 2.5	2.5			_	
PROJECT/CONTRACT:		I-75 Noise St Seament 1 -		udy PR Desion										
BARRIER DESIGN:	_	NB1		- 5					Average p	Average pavement type shall be used unless	shall be us	ed unless		
ATMOSPHERICS:		68 deg	68 deg F, 50% RH	_				•	a State hi of a differ	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantiar approval of	tes the us FHWA	ø	•
Receiver														
Name	No.	#DOS	Existing	No Barrier						With Barrier				
			LAeq1h	LAeq1h		Increase over existing	over ex	isting	Type	Calculated	Noise Reduction	ction		
				Calculated	Crit'n	Calculated	ပ် တိ	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus	ted
			dBA	dBA	dBA	dВ	용			dBA	ф	ф	8 9	
Receiver13	13	1	0.0	76.8		. 99	76.8	10	Snd Lvl	7.69	7.1	1	5	2.1
Receiver14	4	_	0.0	64.3		99	64.3	10		58.9	5.4	4	5	4.0
Receiver15	15	1	0.0	59.5		99	59.5	10	ļ	54.4	5.1	1	5	0.1
Receiver16	16	1	0.0	1 65.1		99	65.1	10		57.2	7.9	6	С	2.9
Receiver17	17	-	0.0	65.7		99	65.7	10		59.8	5.9	6	5	6.0
Receiver18	18	1	0.0	67.3			67.3	10	Snd Lvl	59.8	7.5	. 5	5	2.5
Receiver19	19	1	0.0				6.9/	10	Snd Lvl	70.0		6	5	6,
Receiver20	20	1	0.0	71.7			71.7	10	Snd Lvl	64.2	7.5	22	5	2.5
Receiver21	21	_	0.0	69.2			69.2	10	Snd Lvl	64.2	5.0		5	0.0
Receiver22	22	1	0.0	1 66.7		99	66.7	. 10	Snd Lvl	61.1	5.6	9	5	9.0
Receiver23	23	1	0.0	0.79		99	67.0	10	Snd Lvl	57.5	9.6	2	5	4.5
Receiver24	24	1	0.0				68.7	10	Snd Lvl	58.8	6.6	on on	5	4.9
Receiver25	25	ν	0.0	72.0		99	72.0	10	Snd Lvl	61.3	10.7	7	2	5.7
Dwelling Units		# DUS	Noise Reduction	duction										
			Min	Avg	Max									
			dВ	дB	дB									
All Selected		13	5.0	7.2	2 10.7	1								•
All Impacted		6	5.0	7.7	7 10.7	1								
All that meet NR Goal		13	5.0		7.2 10.7	2								
			,											

RESULTS: SOUND LEVELS	

The Corradino Group John Bucher		٠.				23 Septer TNM 2.5	23 September 2014 TNM 2.5				_
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:	L75 N Segri NB2	I-75 Noise Study Segment 1 - PB C NB2	study - PB Design			Calculate	Calculated with TNM 2.5 Average pavel	2.5 avement type	l with TNM 2.5 Average pavement type shall be used unless	seelun p	
ATMOSPHERICS:	68 deg F,	eg F, 50% RH	-				a State hig of a diffen	hway agency	a State highway agency substantiates the use of a different type with approval of FHWA.	s the use HWA.	÷
Receiver						***************************************					
Name	o. #DUs	Existing	No Barrier					With Barrier			
		LAeq1h	LAeq1h		Increase over existing	rexisting	Type	Calculated	Noise Reduction	tion	
			Calculated	Crit'n	Calculated	Crit'n	Impact	L/Aeq1h	Calculated	Goal	Calculated
	· · · · · ·					Sub'l Inc					minus Goal
		dBA	dBA	dBA	dB	фB		dBA	dB	dB	dB
Receiver26	26	1 0.0	72.	2 66	3 72.2	10	Snd Lvl	64.1	8.1	(B	3.1
Receiver27	27	1 0.0	0.79	99 0.	5 67.0	10	Snd Lvl	0.09	7.0	3	
Receiver28	28	1 0.0		.4 66	66.4	10	Snd Lvl	59.9	6.5		1.5
Receiver29	29	1 0.0			3 74.2	10	Snd Lvl	66.1	8.1	(D)	3.1
Receiver30	30	1 0.0			3 74.0	10	Snd LvI	64.4	9.6		4.6
Receiver31	31	1 0.0		.1 66	5 67.1	10	Snd Lvi	58.1	0.6	(D)	4.0
Receiver32	32	1 0.0				10	destroities	55.0	4.6	5	4.0-
Receiver33	33	1 0.0				10	3,200	54.7	4.4	5	9.0-
Receiver34	32	1 0.0				10]	55.9	5.8	TC)	0.8
Receiver35	35	1 0.0				10]	57.8	8.1	ις	3.1
Receiver36	36	1 0.0				10	Snd Lvl	0.99	10.0	5	5.0
Receiver37	37	1 0.0					Snd Lvi	64.6	9.7	5	2.6
Receiver38	38	1 0.0				10		58.8	5.4	9	0.4
Receiver39	39							57.5	4.3	5	-0.7
Receiver40	9	1 0.0			59.4	10		54.5	4.9	ψ.	-0.1
Receiver41	14	1 0.0		8 66		10	1	56.5	6.3	5	1.3
Receiver42	42	1 0.0	71.2	2 66	3 71.2	10		62.4	8.8	5	3.8
Receiver43	43	1 0.0				10	Snd Lvl	63.5	6.0	5	1.0
Receiver44	44	1 0.0				10		60.0	5.1	5	0.1
Receiver45	45	1 0.0		4 66	52.4	. 10	ererer.	51.0	1.4	5	-3.6
Receiver46	46	1 0.0	ļ			10	WAR TO SERVE	53.9		വ	-3.8
Receiver47	47	1 0.0					7-100	6.09		5	-4.8
Receiver48	48	1 0.0	63.1	1 66	63.1	10	A-1-1-1	63.1	0.0	2	-

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RESULTS: SOUND LEVELS					_	I-75 Noise Study	tudy				
Receiver49	49 1	0.0	57.0	99	57.0	10		56.9	0.1	2	4.9
Receiver50	50 1	0.0	55.0	99	55.0	10	1	54.1	6.0	2	-4.1
Receiver51	51	0.0	64.4	99 1	64.4	10]	62.8	1.6	2	-3.4
Receiver52	52 1	0.0	63.1	99	63.1	10		63.0	0.1	2	4.9
Dwelling Units	# DUs	# DUs Noise Reduction	duction				4				
		Min	Avg	Max							
		dВ	дB	쁑							
All Selected	27	0.0	5.0	10.0							
All Impacted	10	6.0	8.1	10.0							
All that meet NR Goal	15	5.1	7.4	10.0							

AD LEVELS
LTS: SOUN
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The Corradino Group							23 Sente	23 September 2014					
John Bucher							TNM 2.5						
							Calculat	Calculated with TNM 2.5	12.5			_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	I-75 N	\(\overline{G}\)	ndy							,			•
RUN: BARRIER DESIGN:	Segment 1 SB1		PB Design	_		_		Average	Average navement type shall be used unless	shall be us	nd in bee		
						_		a State hi	a State highway agency substantiates the use	y substantial	tes the use		
ATMOSPHERICS:	68 de	68 deg F, 50	0% RH					of a differ	of a different type with approval of FHWA	approval of	FHWA.		
Receiver													
Name No.	» #DNs	Existing		No Barrier					With Barrier				
		LAeq1h	,	LAeq1h		Increase over existing	existing	Type	Calculated	Noise Reduction	ction		Γ
			Cal	Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	T
							Sub'l Inc					minus Goal	
		dBA	dBA		dBA	dB	dB		dBA	dВ	ф	dВ	Ī
Receiver53	53	1	0.0	64.0	99	64.0		10	63.0	1.0		5 -4.0	0
Receiver54	54	-	0.0	62.1	99	62.1		10	60.7	1,4		-3.6	ဖ
Receiver55	55	1	0.0	62.8	99			10	59.9	2.9		5 -2.1	_
Receiver56	56	1	0.0	2.99	99	66.7		10 Snd Lvl	62.7	4.0		1.0	0
Receiver57	57	1	0.0	57.1	66	57.1		10	52.0	5.1		0.1	(-
Receiver58	58	1	0.0	64.9	99			10	58.5	6.4		4.1	4
Receiver59	59	-	0.0	68.3	99	68.3		10 Snd Lvl	60.3	8.0		3.0	0
Receiver60	09	7	0.0	61.6	99			10	56.0	5.6		9.0	တ
Receiver61	61	1	0.0	68.1	99			10 Snd Lvl	59.4			3.7	_
Receiver62	62	1	0.0	61.5	99	61.5		10	54.4	7.1		3 2.1	_
Receiver63	63	_	0.0	69.3	99			10 Snd Lvi	60.8			3.5	10
Receiver64	64	_	0.0	61.1	99			10	53.5	7.6			ဖ
Receiver65	65	_	0.0	53.8	66			10	52.3	1.5		5 -3.5	Ω
Receiver66	99	_	0.0	57.0	66			10	53.8			5 -1.8	00
Receiver67	67	1	0.0	58.3	99	58.3		10	57.6	0.7		5 4.3	m
Receiver68		1	0.0	74.4	99			10 Snd Lvl	74.3	0.1		5 4.9	ര
Receiver69		1	0.0	72.0	99			10 Snd Lvl	72.0	0.0		5 -5.0	0
Receiver80		1	0.0	57.6	99	57.6		10	52.8	4.8		5 -0.2	
Receiver81	81	_	0.0	56.2	66	56.2		10	55.2	1.0		.4.0	0
Dwelling Units	# DUs	-	e Reduction	по			-						1
	-	Min i	Avg		Max								
		8	98		qB	n							
All Selected		19	0.0	4.1	8.7							-	
		F	- C						•				l

8.7	7.1	5.1	8		All that meet NR Goal
8.7		0.0	9	-	All Impacted

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The Corradino Group								23	Septem	23 September 2014					
John Bucher								Z G	TNM 2.5 Calculated	TNM 2.5 Calculated with TNM 2.5	12.5			_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	1 -1	I-75 Noise St	e Study) i			_	
RUN: BARRIFR DESIGN:	S Z	Seg2 - M	eyers to	Seg2 - Meyers to John R - Walls NB1&2	Walls					Average	Average naviement time shall be used unless	ehall ho	solan bas	6	
	•	5	_							a State h	State highway agency substantiates the use	cy substant	iseu unies ates the u	ຸດ	
ATMOSPHERICS:	39	68 deg F, 50	, 50% RH	_						of a diffe	of a different type with approval	approval c	of FHWA.	;	
Receiver															
Name	No. #□	#DUS E	Existing	No Barrier	ier						With Barrier	L			
			LAeq1h	LAeq1h			Increase over existing	ver exi		Type	Calculated	Noise Reduction	luction		
				Calculated	, , , , , , , , , , , , , , , , , , ,	Crit'n	Calculated			Impact	LAeq1h	Calculated	d Goal	Calc	Calculated
-								Sul	Sub'l Inc					minus	sn
														Goal	
		٦	dBA	dBA	쁑	dBA	dВ	eg e			dBA	вВ	dВ	фB	
First Free Will Baptist Church	3	6	0.0		74.9	99		74.9	10	Snd Lvi	67.3		7.6	5	2.6
United Oaks Elementary	73	21	0.0		56.0	99		56.0	10		51.0		5.0	S.	0.0
Hazel Park Jr High	74	43	0.0		53.0	66		53.0	10	1	50.2		2.8	വ	-2.2
Receiver85	85	-	0.0	(68.3	99		68.3	10	Snd Lvl	65.7		2.6	2	-2.4
Receiver86	98	_	0.0		63.6	99		63.6	10	ļ	61.1		2.5	22	-2.5
Receiver87	87		0.0)	59.7	99		59.7	10		58.1		1.6	က	-3.4
Receiver88	88	7	0.0		69.3	99		69.3	10	Snd Lvl			4.2	വ	-0.8
Receiver89	68	_	0.0		9.09	99		60.6	10	-	57.8		2.8	വ	-2.2
Receiver90	8	_	0.0		57.2	99		57.2	10		55.7		1.5	2	3.5
Receiver91	91	τ-	0.0		72.6	99		72.6	10	Snd Lví	64.5		8.1	Ω.	3.1
Receiver92	92	-	0.0		62.9	99		62.9	10]	59.3		6.6	5	1.6
Receiver93	93		0.0		62.6	99		62.6	10	1	56.6		6.0	5	1.0
Receiver94	94	-	0.0		59.3	99		59.3	10	-	54.8		4.5	2	-0.5
Receiver95	92	-	0.0		57.8	99		57.8	10	-	53.5		4.3	2	-0.7
Receiver97	97	₩	0.0		73.7	99		73.7	10	Snd Lvl	64.2		9.5	5	4.5
Receiver98	86	_	0.0		72.3	99		72.3	10	Snd Lvl	63.0		9.3	5	4.3
Receiver99	66	-	0.0	(71.5	99		71.5	10	Snd Lvi	61.7		9.8	5	4.8
Receiver100	100	_	0.0		70.0	99		70.0	10	Snd Lví	60.5		9.5	ည	4.5
Receiver101	101	_	0.0		68.3	66		68.3	10	Snd Lvl	59.6		8.7	သ	3.7
Receiver102	102	_	0.0		66.2	99		66.2	10	Snd Lvl			7.9	. 5	2.9
Receiver103	103	-	0.0		75.4	99		75.4	10	Snd LvI			11.4	5	6.4
Receiver104	104	-	0.0		73.1	99		73.1	9	Snd Lvl	61.8		11.3	2	6.3
Receiver105	105	ᅱ	0.0		68.0	99		68.0	10	Snd Lvl	58.9		9.1	ည	4.1

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RESULTS: SOUND LEVELS							I-75 Noise Study	Study				
Receiver106	106	_	0.0	0.89	99	68.0	10	Snd Lvl	58.7	9.3	2	4.3
Receiver107	107	-	0.0	68.1	99	68.1	10	Snd Lvl	59.5	8.6	ις	3.6
Receiver108	108	_	0.0	67.4	99	67.4	10	Snd Lvl	58.2	9.2	5	4.2
Receiver109	109	_	0.0	66.1	99	66.1	10	Snd Lvl	57.5	8.6	2	3.6
Receiver110	110	·	0.0	64.0	99	64.0	10		56.6	7.4	ۍ.	2.4
Receiver111	111	1	0.0	63.0	99	63.0	10		56.0	7.0	2	2.0
Receiver114	114	*	0.0	73.5	99	73.5	10	Snd Lvl	65.0	8.5	5	3.5
Receiver115	115	₹	0.0	72.2	99	72.2	10	Snd Lvl	63.2	0.6	2	4.0
Receiver116	116	/	0.0	71.2	99	71.2	10	Snd Lvl	63.1	8.1	2	3.1
Receiver117	117	1	0.0	9.99	99	9.99	10	Snd Lvl	59.1	7.5	£C.	2.5
Receiver118	118	-	0.0	65.2	99	65.2	10		57.9	7.3	5	2.3
Receiver119	119	_	0.0	64.3	99	.64.3	10	ware.	57.0	7.3	c)	2.3
Receiver120	120		0.0	62.6	99	62.6	10	THE PERSON NAMED IN COLUMN 1	55.9	6.7	5	1.7
Receiver121	123	-	0.0	61.3	99	61.3	10		55.2	6.1	2	1.1
Receiver123	123	_	0.0	74.4	99	74.4	10	Snd Lvl	67.8	6.6	22	1.6
Receiver124	124	_	0.0	71.0	99	71.0	10	Snd Lvl	9.99	4.4	5	9.0-
Receiver125	125	-	0.0	6.07	99	70.9	10	Snd Lvl	65.8	5.1	5	0.1
Receiver126	126		0.0	68.4	99	68.4	10	Snd Lvl	63.3	5.1	ഹ	0.1
Receiver127	127	₹~	0.0	65.7	99	65.7	10		60.1	5.6	5	9.0
Receiver128	128	1	0.0	62.0	99	62.0	10	-	56.4	5.6	2	9.0
Receiver129	129	1	0.0	59.5	99	59.5	10		54.8	4.7	co.	-0.3
Receiver130	130	_	0.0	58.2	99	58.2	10		53.3	4.9	5	6
Receiver131	131	1	0.0	56.8	99	56.8	10		53.2	3.6	2	4.1-
Receiver132	132	_	0.0	55.5	99	55.5	10		52.7	2.8	5	-2.2
Receiver133	133	_	0.0	55.7	99	29.7	10	1	52.6	3.1	2	e. <u>F</u>
Receiver134	134	-	0.0	56.7	99	299	10	1	53.2	3.5	5	-1.5
Receiver135	135	1	0.0	73.9	99	73.9	10	Snd LvI	66.2	7.7	22	2.7
Receiver136	136	-	0.0	71.9	99	71.9	10	Snd Lvl	64.8	7.1	5	2.1
Receiver137	. 137	1	0.0	6.07	99	70.9	10	Snd Lvl	63.9	7.0	5	2.0
Receiver138	138	₹ -	0.0	70.0	99	70.0	10	Snd Lvl	63.7	6.3	5	1.3
Receiver139	139	*	0.0	69.3	99	69.3	10	Snd LvI	63.9	5.4	£	0.4
Receiver140	140	1	0.0	68.3	99	68.3	10	Snd Lvl	62.2	6.1	5	1.1
Receiver141	141	1	0.0	65.2	99	65.2	10		65.0	0.2	٠	4.
Receiver142	142	1	0.0	64.8	99	64.8	10		60.2	4.6	လ	-0.4
Receiver143	143	1	0.0	65.8	99	65.8	10	***************************************	62.8	3.0	5	-2.0
Receiver144	144	1	0.0	65.5	99	65.5	10	1	61.8	3.7	ಸ	-1.3
Receiver145	145	_	0.0	61.5	99	61.5	10	-	2.99	4.8	5	-0.2
Receiver146	146	1	0.0	61.2	99	61.2	10		56.8	4.4	ಭ	-0.6
Receiver147	147	1	0.0	60.2	99	60.2	10		55.8	4 4	ည	9.0-
Receiver148	148	, -	0.0	57.8	99	57.8	10		54.1	3.7	5	-1.3
Receiver149	149	—	0.0	29.0	99	29.0	9		54.1	4.9	2	-0.1
ATIONITY MINTERSONIES (STOCK) OF COLUMN			17.0									

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RESULIS: SOUND LEVELS							I-75 Noise Study	Study				
Receiver150	150	-		58.0	99	58.0	10		53.3	4.7	5	-0.3
Receiver151	151	1	0.0	55.7	99	55.7	10	1	53.1	2.6	5	-2.4
Receiver152	152	1		57.1	99	57.1	10	1	52.9	4.2	5	-0.8
Receiver153	153	-	0.0	56.0	99	56.0	1	1	52.3	3.7	5	-1.3
Dwelling Units]#	# DUs Noise F	Reduction				4					
		Min	Avg	Σ	Max							
		фB	фB	ф	m							
All Selected		138 (0.2	5.9	11.4				٠			•
All Impacted		39	2.6	7.7	11.4							
All that meet NR Goal		67	5.0	7.6	11.4							

## Calculated with TMM 2.5 Fig. 2.6	RESULTS: SOUND LEVELS								1-75	I-75 Noise Study	Study				,	
The Part of	The Correction Cours								ç	4	2044			 		
Calculated Cal	John Bucher								° ₹	septem // 2,5	Der 2014					
Formal English Form									Cal	culated	with TNA	1 2.5			_	
Seg2 - Meyers to John R - Walls Seg3 - Meyers to John R - Walls Seg4 - Meyers Seg4 - Mey	RESULTS: SOUND LEVELS PROJECT/CONTRACT:		1.75 No	So Study												
Figure F	RUN:		Seg2-	Weyers to	John R-1	Valls										
ver No. #DLS Existing No. PDLS Existing No. PDLS Existing No. PDLS PDLS <th< th=""><th>BARRIER DESIGN:</th><th></th><th>SB1</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Average </th><th>avement typ</th><th>e shall be us</th><th>selun pes</th><th>s</th><th></th></th<>	BARRIER DESIGN:		SB1								Average	avement typ	e shall be us	selun pes	s	
Verlot Firsting No. #DUS Existing No Barrier Increase over existing Verlot Calculated Crit Calculated Crit Calculated Crit Sub1 Inc Verlot 25 1 0.0 77.0 66 77.0 10 Verlot 28 1 0.0 72.1 66 77.1 10 Verlot 29 1 0.0 72.1 66 77.1 10 Verlot 30 1 0.0 72.1 66 77.1 10 Verlot 30 1 0.0 72.1 66 77.1 10 Verlot 30 1 0.0 72.1 66 77.9 10 Verlot 30 1 0.0 70.9 66 77.9 10 Verlot 50 1 0.0 65.9 66 67.9 10 Verlot 60 1 0.0 <th< th=""><th>ATMOSPHERICS:</th><th></th><th>68 deg</th><th></th><th>I</th><th></th><th></th><th></th><th></th><th></th><th>a State hi of a differ</th><th>ghway ageno ent type with</th><th>sy substantia napproval of</th><th>ites the u FHWA.</th><th>se</th><th></th></th<>	ATMOSPHERICS:		68 deg		I						a State hi of a differ	ghway ageno ent type with	sy substantia napproval of	ites the u FHWA.	se	
No. #DUs Existing Calcutated Calcutated Increase over existing Calcutated Increase over existing Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated Calcutated 	Receiver										WY		-			
Calculated Critical Increase over existing Type Calculated Critical Impact LAeq1h Calculated Critical Impact LAeq1h Calculated Critical Impact Calculated Calculated Critical Impact Calculated Calculated Critical Impact Calculated		#DNs	Existing	No Barri	je.						With Barrie					
Calculated Critic Calculated Critic Impact LAeqth LA				LAeq1h	LAeq1h			ncrease o	ver exis		Type	Calculated	Noise Reduction	ıction		
A					Calculate			Calculated	Sit		mpact	LAeq1h	Calculated	Goal	Calc	Calculated
Color Colo															minus	sn _
25 1 0.0 71.0 66 71.0 10 Snd Lvl 28 1 0.0 68.1 66 68.1 10 Snd Lvl 30 1 0.0 72.1 66 75.8 10 Snd Lvl 31 1 0.0 74.4 66 75.8 10 Snd Lvl 33 1 0.0 72.1 66 70.9 10 Snd Lvl 38 1 0.0 67.2 66 67.2 10 Snd Lvl 54 1 0.0 67.9 66 67.2 10 Snd Lvl 56 1 0.0 67.9 66 67.9 10 Snd Lvl 56 1 0.0 67.9 66 67.9 10 Snd Lvl 60 1 0.0 65.9 66 67.8 10 Snd Lvl 79 1 0.0 67.8 66 67.8 10 <td< td=""><td></td><td></td><td></td><td>dBA</td><td>dBA</td><td>dBA</td><td></td><td>RB</td><td>8</td><td></td><td></td><td>dBA</td><td>æ</td><td>gg B</td><td>음 음</td><td>•</td></td<>				dBA	dBA	dBA		RB	8			dBA	æ	gg B	음 음	•
28 1 0.0 68.1 66 68.1 10 Snd LvI 29 1 0.0 72.1 66 72.1 10 Snd LvI 30 1 0.0 75.8 66 75.8 10 Snd LvI 31 1 0.0 74.4 66 75.9 10 Snd LvI 38 1 0.0 70.9 66 67.2 10 Snd LvI 56 1 0.0 67.2 66 67.2 10 Snd LvI 56 1 0.0 67.2 66 65.1 10 Snd LvI 60 1 0.0 67.2 66 65.3 10 Snd LvI 76 1 0.0 67.3 66 65.9 10 Snd LvI 78 1 0.0 67.8 66 65.1 10 Snd LvI 83 1 0.0 66.3 66 66.1 10 <td< td=""><td>Receiver25</td><td>25</td><td></td><td>Ö</td><td></td><td>71.0</td><td>99</td><td>7</td><td>1.0</td><td>10</td><td>Snd Lvl</td><td>.99</td><td></td><td>5.0</td><td>5</td><td>0.0</td></td<>	Receiver25	25		Ö		71.0	99	7	1.0	10	Snd Lvl	.99		5.0	5	0.0
29 1 0.0 72.1 66 72.1 10 Snd LvI 30 1 0.0 75.8 66 75.8 10 Snd LvI 31 1 0.0 74.4 66 74.4 10 Snd LvI 32 1 0.0 70.9 66 70.9 10 Snd LvI 38 1 0.0 67.9 66 67.2 10 Snd LvI 56 1 0.0 67.9 66 67.9 10 Snd LvI 60 1 0.0 67.9 66 67.9 10 Snd LvI 60 1 0.0 67.9 66 67.9 10 Snd LvI 76 1 0.0 67.9 66 67.8 10 Snd LvI 76 1 0.0 67.8 66 67.8 10 Snd LvI 79 1 0.0 66.3 66 66.3 10 <td< td=""><td>Receiver28</td><td>28</td><td></td><td>Ö.</td><td></td><td>38.1</td><td>99</td><td>9</td><td>8.1</td><td>9</td><td>Snd Lvl</td><td>63.</td><td></td><td>5.1</td><td>5</td><td>0.1</td></td<>	Receiver28	28		Ö.		38.1	99	9	8.1	9	Snd Lvl	63.		5.1	5	0.1
30	Receiver29	29	~	Ö		72.1	99	7	2.1	5	Snd Lvl	.49		-	2	3.1
31 1 0.0 744 66 744 10 Snd Lvi 33 1 0.0 70.9 66 70.9 10 Snd Lvi 38 1 0.0 70.9 66 70.9 10 Snd Lvi 38 1 0.0 67.2 66 67.2 10 Snd Lvi 54 1 0.0 67.9 66 67.9 10 Snd Lvi 55 1 0.0 67.9 66 65.9 10 Snd Lvi 56 1 0.0 65.9 66 65.9 10 Snd Lvi 57 1 0.0 65.9 66 65.9 10 Snd Lvi 78 1 0.0 65.1 66 65.1 10 Snd Lvi 79 1 0.0 65.1 66 65.1 10 Snd Lvi 79 1 0.0 66.3 66 66.3 10 Snd Lvi 81 1 0.0 66.5 66 66.5 10 Snd Lvi 82 1 0.0 66.5 66 66.5 10 Snd Lvi 83 1 0.0 66.5 66 66.5 10 Snd Lvi 84 1 0.0 66.5 66 66.5 10 Snd Lvi 85 1 3.9 6.7 10.1 85 1 3.9 6.7 10.1 86 10.1 87 1 3.9 6.7 10.1 88 10.1 89 10.1	Receiver30	30	1	Ö		75.8	99	7	5.8	10	Snd Lvl	.99	7 9.1	1	5	4.1
33 1 0.0 70.9 66 70.9 10 Snd LvI 35 1 0.0 67.2 66 70.9 10 Snd LvI 54 1 0.0 67.9 66 67.9 10 Snd LvI 56 1 0.0 67.9 66 65.9 10 Snd LvI 60 1 0.0 67.9 66 65.9 10 Snd LvI 76 1 0.0 67.8 66 67.8 10 Snd LvI 81 1 0.0 67.8 66 66.9 10 Snd LvI 82 1 0.0 67.8 66 66.3 10 Snd LvI 83 1 0.0 66.3 66 66.3 10 Snd LvI Min Avg Max Avg	Receiver31	3		ō		74.4	99	7	4.4	5	Snd Lvi	64.	3 10.1	1	5	5.1
36 1 0.0 70.9 66 70.9 10 Snd Lvl 38 1 0.0 67.2 66 67.2 10 Snd Lvl 54 1 0.0 69.1 66 69.1 10 Snd Lvl 56 1 0.0 67.9 66 65.9 10 Snd Lvl 60 1 0.0 65.9 66 65.9 10 10 76 1 0.0 67.8 66 65.6 10 10 78 1 0.0 67.8 66 65.6 10 10 81 1 0.0 67.8 66 69.1 10 Snd Lvl 10	Receiver33	33	_	Ö		6.07	99	7	6.0	9	Snd Lvi	62.	THE PERSON NAMED IN COLUMN NAM	8.5	5	3.5
38 1 0.0 67.2 66 67.2 10 Snd Lvl Snd Lvl 54 1 0.0 69.1 66.1 10 Snd Lvl 10 5.6 66.9 66.9 10 10 Snd Lvl 10 <	Receiver35	35	1	0.		6.07	99	7	6.0	10	Snd Lvl	63.7		7.7	5	2.7
54 1 0.0 69.1 66 69.1 10 Snd Lvl 50 67.9 66 67.9 10 Snd Lvl 50 67.8 66 67.9 10 Snd Lvl 70 67.8 66 65.6 10 70	Receiver38	38	_	.0		37.2	99	9	7.2	10	Snd Lvl	62.0		5.2	5	0.2
56 1 0.0 67.9 66 67.9 10 Snd Lvl 58 1 0.0 65.9 66 65.9 10 — 9 66 65.9 10 — 9 66 65.9 10 — 9 66 66.9 10 — 9 66 66.9 10 — 9 66.3 66 66.3 10 Snd Lvl 9 66.3 66.3 10 Snd Lvl 9 66.3 66.3 10 Snd Lvl 9 66.3 10 Snd Lvl 9 66.3 66.3 10 Snd Lvl 9 66.3 66.3 10 Snd Lvl 9 66.3 66.3 10 Snd Lvl 9 10 8 10 8 10 8 10	Receiver54	54	1	ō		39.1	99	9	9.1	10	Snd Lvl	65.		3.9	22	-1.1
58 1 0.0 65.9 66.9 10 —— 9 10 —— 9 10 —— 9 10 —— 9 10 —— 10 —— 10 —— 10 —— 10 —— 10 —— 10 —— 10 —— 10 10 —— 10 10 —— 10<	Receiver56	56	_	0.0		87.9	99	9	7.9	10	Snd Lvl	59.		8.3	2	3.3
60	Receiver58	58	Τ.)''0		35.9	8	9	5.9	19		58.		7.3	5	2.3
76 1 0.0 67.8 66 67.8 10 Snd Lvl 78 1 0.0 69.1 66.3 10 Snd Lvl 81 1 0.0 70.7 66.3 10 Snd Lvl 83 1 0.0 66.3 66.3 10 Snd Lvl Min Dls Noise Reduction Min Avg Max Avg Max 1 1 3.9 6.7 10.1 Avg Av	Receiver60	9	_	0.0		35.6	99	9	5.6	10		59.4	6.1		5	1.1
78 1 0 69.1 66.3 66.1 10 Snd Lvl 81 1 0.0 66.3 66.3 10 Snd Lvl 83 1 0.0 66.3 66.5 10 Snd Lvl ** **********************************	Receiver76	9/	~	Ö		37.8	99	9	7.8	10	Snd Lvl	61.	7 6.1	_	Q.	1.1
79 1 0.0 70.7 66 70.7 10 Snd Lvi 8 8 1 0.0 66.3 66 66.3 10 Snd Lvi 8 8 1 0.0 66.5 66 66.5 10 Snd Lvi 8 8 8 8 8 8 8 8 8	Receiver78	78	1	. 0.0		39.1	99	9	9.1	10	Snd Lvl	.29	5.4	4	2	0.4
R1 1 0.0 66.3 66 66.3 10 Snd Lvl Snd L	Receiver79	79	1	0.0		7.0.7	99	7	0.7	9	Snd Lvi	64.		6.5	5	1.5
R3 1 0.0 66.5 66 66.5 10 Snd Lvl	Receiver81	81	_	0.0		56.3	99	9	6.3	10	Snd Lvi	61.0	5.3	8	5	0.3
# DUS Noise Reduction Min Avg Max dB dB dB 17 3.9 6.7 16 5.0 6.9	Receiver83	83	-	0 (36.5	99	9	6.5	10	Snd Lví	59.		7.0	5	2.0
Min Avg Max dB dB dB dB 17 3.9 6.7 7 16 3.9 6.8 6.8 16 5.0 6.9 6.9	Dwelling Units		# DNs	Noise Re	duction											,
dB dB<				Min	Avg	Max										
17 3.9 6.7 15 3.9 6.8 16 5.0 6.9				фB	9 B	фB										
15 3.9 6.8 16 5.0 6.9	All Selected		17	3.6	le	6.7	10.1									
16 5.0 6.9	All Impacted		15		6	6.8	10.1									
	All that meet NR Goal		16			6.9	10.1									

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The Corradino Group John Bucher								8 ¥ 0	23 Septem TNM 2.5	23 September 2014 TNM 2.5				_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	Sec	I-75 Noise Si Seg3 - 9 Mile	e Study Mile to V	I-75 Noise Study Seg3 - 9 Mile to Woodward Hts - Walls	Hts - W	/alls		<u>.</u>	Culated	Calculated with INM 2.5	2.5 1			_	
BARRIER DESIGN:	E S	4B1	70 /00	-						Average a State h	Average pavement type shall be used unless a State highway agency substantiates the use	e shall be us y substantia	ed unless tes the us	d)	
ATHROST HENDS,	90	L Gan	ิ							от а сипе	or a different type with approval of FHWA.	approval or	FHWA.		I
Receiver				2									·		
	No. #DOS		Existing	No Darrier	ler						With Barrier				\neg
		<u> </u>	LAeqın	Calculated		Crit'n	Increase over existing	ver existin		Type Impact	Calculated	Noise Reduction	ction	Calculated	
			•			:			nc		<u> </u>			minus	
														Goal	
		-	dBA	dBA	dBA	A	dВ	B			dBA	dВ	dВ	dB	
Receiver3	3	1	0.0		74.3	99		74.3	10	Snd Lvl	6.99	7.4	+		2.4
Receiver4	4	_	0.0		68.0	66		68.0	10	Snd Lvi	63.6	4.4	-	9	9.0
Receiver5	5	_	0.0		65.2	99		65.2	10		59.9	9 5.3	8		0.3
Receiver6	9	-	0.0	_	74.5	99		74.5	10	Snd Lvl	66.1	8.4	-		3.4
Receiver7	7	_	0.0		69.5	99		69.5	10	Snd Lvl	62.7				6 .
Receiver8	8	_	0.0	_	67.8	99		67.8	10	Snd Lvl	60.0	7.8	8		2.8
Receiver9	6	-	0.0		74.3	99		74.3	10	Snd Lvl	64.8		2		4.5
Receiver10	10	۳	0.0		67.9	99		67.9	10	Snd Lvl	58.6		3		4.3
Receiver11	7	_	0.0		63.0	99		63.0	10	w	55.2	7.8	3		2.8
Receiver12	12	-	0.0		73.3	99		73.3	10	Snd Lvi	63.8	9.5	2		4.5
Receiver13	13	-	0.0		70.0	99		70.0	10	Snd Lvl	60.0	10.0)		5.0
Receiver14	14	-	0.0		66.5	99		66.5	10	Snd Lvl	57.1		y-4-	5 4	4.4
Receiver16	16	-	0.0		73.7	99		73.7	10	Snd Lvl	64.4		3		4.3
Receiver17	17	-	0.0		68.0	99		0.89	10	Snd Lvl	59.5			5 3	3.5
Receiver18	18	-	0.0		64.8	99		64.8	10		56.4	8.4			3.4
Receiver19	19	1	0.0	-	73.0	66	_	73.0	10	Snd Lvl	64.4	8.6	50	3	3.6
Receiver20	20	_	0.0		69.0	99		0.69	10	Snd Lvi	60.7	8.3			3.3
Receiver21	21	1	0.0		66.6	99		9.99	10	Snd Lvl	58.2	8.4		5	3.4
Receiver25	25	_	0.0		69.3	66	9	69.3	10	Snd Lvl	62.0	7.3		5 2	2.3
Receiver26	26	_	0.0		62.2	99	9	62.2	10		55.9	6.3		5	ر ن
Receiver27	27	-	0.0		73.0	99	1	73.0	10	Snd Lvl	66.2	6.8	1	5	8.
Receiver28	28	-	0.0		69.2	99	9	69.2	10	Snd Lvl	62.2	7.0		5	2.0
Receiver29	29	T	0.0		66.2	99	9	66.2	10	Snd Lvl	59.1	7.1	-	5 2.	2.1

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RESULTS: SOUND LEVELS							75 Nóise	I-75 Noise Study				
Receiver30	30	-	0.0	70.2		66 70.2	10	Snd Lvl	63.9	6.3	2	1.3
Receiver31	31	1000	0.0	62.4		66 62.4	10		58.0	4.4	2	-0.6
Dwelling Units		# DUS Noise		Reduction								
			Min	Avg	Max							
			dB	фВ	æ							-
All Selected		25	4.4	7.7	10.0	0						
All Impacted		20	4.4	8.0	10.0	0						•
All that meet NR Goal		23	5.3	8.0		10						

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RESULTS: SOUND LEVELS							I-75 Noise Study	Study					
The Corradino Group							23 Septer	23 September 2014					
John Bucher							TNM 2.5 Calculate	TNM 2.5 Calculated with TNM 2.5	2.5	•		_	
RESULTS: SOUND LEVELS									į			_	
PROJECT/CONTRACT:		I-75 Noise St	ise Study										
RUN:		Seg3 -	9 Mile to \	Seg3 - 9 Mile to Woodward Hts - Walls	s - Walls						-		
BARRIER DESIGN:		SB1						Average p	Average pavement type shall be used unless	shall be use	ed unless		
								a State hig	a State highway agency substantiates the use	/ substantiat	es the use	4	
ATMOSPHERICS:		68 deg	68 deg F, 50% RH	H				of a differ	of a different type with approval of FHWA	approval of F	-HWA.		
Receiver								-					
Name	No.	#DUs	Existing	No Barrier				-	With Barrier				
	•		LAeq1h	LAeq1h		Increase over existing	er existing	Type	Calculated	Noise Reduction	ction		Ţ
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	9
							Sub'l Inc					minus Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	фB	dB dB	
Receiver34	34	1	0.0	0 63.0	99 (63.0	0. 10		62.9	0.1		2	6,4
Receiver35	35	1	0.0	0 68.1	99	5 68.1	.1 10	Snd Lvl	67.0	1.1		5	9.6
Receiver36	36	_	0.0	0 69.3	99	5 69.3	.3 10	Snd Lvl	6.99	2.4		5	-2.6
Receiver38	38	1	0.0	0 65.0	99	9 65.0	.0 10	H MANAGE AND A STREET	58.6	6.4		5	4.
Receiver40	40	1	0.0	0 65.5	99	5 65.5	.5 10	71-01-01-01	58.6	6.9		,	6.
Receiver41	41	80	0.0	0 75.6	99		.6 10	Snd Lvl	66.3	9.3		2	6.4
Receiver42	42	1	0.0	0 64.2	99	5 64.2	.2 10	1	58.7	5.5		5 (0.5
Receiver43	43	2	0.0	75.2	99 7	3 75.2	2 10	Snd LvI	68.7	6.5		5	1.5
Receiver50 2nd Floor	90	2	0.0	78.6	99	3 78.6	.6	Snd Lvl	69.8	8.8			3.8
Receiver51 2nd Floor	51	8	0.0	79.6	99 66	3 79.6	.6 10	Snd Lvl	68.3	11.3		5	6.3
Dwelling Units		# DNs	Noise R	e Reduction									
	•		Min	Avg	Мах	1							
			dВ	dВ	dВ								
All Selected		26	0.1	5.8	11.3	Im							
All Impacted		22	7.	6.6	11.3	m							
All that meet NR Goal		23	5.5	5 7.8	11.3	· •							
													1

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RESULTS: SOUND LEVELS							I-75 Noise Study	• Study				
The Corradino Group John Bucher							23 Septer TNM 2.5	23 September 2014 TNM 2.5	<u>u</u>			_
RESULTS: SOUND LEVELS							Calculate		67			_
PROJECT/CONTRACT:	1-75	I-75 Noise Study	Study							ř		
RUN:	Seg	4 - Wo	odward	Seg4 - Woodward Hts to I-696 - Walls	Walls							
BARRIER DESIGN:	NB1							Average p	Average pavement type shall be used unless	shall be use	d unless	
ATMOSPHERICS:	89	deg F,	68 deg F, 50% RH					a State hi	a State highway agency substantiates the use of a different type with approval of FHWA.	/ substantiate approval of F	s the use HWA.	
Receiver												
Name No.	*DO#		Existing	No Barrier					With Barrier		-	
			LAeq1h	LAeq1h	***************************************	Increase over existing	rexisting	Type	Calculated	Noise Reduction	tion	
			, -	Calculated	Crittn	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus Goal
		dBA		dBA	dBA	dB	dB		dBA	dB	фB	фВ
Receiver2	2	_	0.0	69.7	99	69.7	7 10	Snd Lvl	64.7	5.0		5 0.0
Receiver3 (second row)	3	1	0.0	65.0	99	65.0	0 10		62.0	3.0		5 -2.0
Receiver5	5	-	0.0	73.0		73.0	0 10	Snd Lvl	63.9	9.1		5 4.1
Receiver6	9	~	0.0	73.7		73.7	10	Snd Lvl	64.8	8.9		3.9
Receiver8	8	1	0.0	72.5	99	72.5	5 10	Snd Lvl	2.79	4.8		5 -0.3
Receiver56	26	~	0.0	64.5		64.5	5 10	(62.1	2.4		5 -2.6
Receiver57	22	_	0.0	65.8	99	65.8	10	-	64.0	1.8		5 -3.2
Receiver92	35	_	0.0	66.3	99	66.3	3 10	Snd Lvl	58.5	7.8		5 2.8
Receiver93	93	_	0.0	64.8	99	64.8	9 10		58.8	6.0		1.0
Serenity Christian Church	4	∞	0.0	73.4	99	73.4	4 10	Snd Lvl	64.3	9.1		5 4.1
Dwelling Units	Q#	# DOS	Noise Reduction	uction				***************************************	-			
		Min	n	Avg	Max							
		骨		鲁	嬰							
All Selected		17	1.8	5.8	9.1							
All Impacted		13	4.8	7.4	9.1							
All that meet NR Goal		13	2.0	7.6	9.1							

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RESULTS: SOUND LEVELS							I-75 Noise Study	Study				
The Corradino Group John Bucher							23 Septer TNM 2.5 Calculate	23 September 2014 TNM 2.5 Calculated with TNM 2.5	12.5			_
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 N Seg4	I-75 Noise Study Seg4 - Woodwar	udy ward H	I-75 Noise Study Seg4 - Woodward Hts to I-696 - Walls	- Walls							· -
BARRIER DESIGN:	SB1					_		Average page a	Average pavement type shall be used unless a State highway agency substantiates the use	e shall be use v substantiat	ed unless	
ATMOSPHERICS:	98 de	68 deg F, 50% RH	% RH					of a diffe	of a different type with approval of FHWA	approval of F	HWA.	
Receiver												
Name	No. #DUs	Existin	ρ	No Barrier					With Barrier			
		LAeq1	_	-Aeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
		·					Sub'l Inc					minus
										_		Goal
		dBA	р	dBA	dBA	dВ	dB		dBA	dВ	aB	dВ
Receiver12	12		0.0	66.7	99	5 66.7	7 10	Snd Lvl	64.8	1.9	5	-3.
Receiver13	13	+	0.0	69.1	99	69.1	10	Snd Lvl	68.1	1.0	S	6.4
Receiver46	46	-	0.0	64.8	99	64.8	10		63.2	1.6	5	-3.4
Receiver47	47	1	0.0	64.2	99		2 10		62.6	1.6	5	-3.4
Receiver48	48	_	0.0	62.6	99	62.6	3 10		61.0	1.6	5	-3.4
Dwelling Units	# DOS	Noise		Reduction								
		Min	1	Avg	Мах							
		용		8	8	t I						
All Selected		S.	1.0	1.5	1.9	1.00						
All Impacted		2	0.	1.4	1.9							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS				÷			I-75 Noise Study	e Study					
The Corradino Group							23 Septe	23 September 2014					
John Bucher							TNM 2.5	ļ				_	
DECILITE: COLIND LEVEL O							Calculate	Calculated with INM 2.5	M 2.5				
PROJECT/CONTRACT:	1-75 1	I-75 Noise Study		:									
RON: BARRIER DESIGN:	Seg4	Seg4 - Woodward Hts to I-696 - Walls SR2	d Hts to I-	696 - Wall				Δνοτοπο	Averane nevement time shall be used unless	o ehall he uee	asolan be	•	
					_			a State h	a State highway agency substantiates the use	v suhstantiat	es the use		
ATMOSPHERICS:	P 89	68 deg F, 50% RH	£					of a diffe	of a different type with approval of FHWA.	approval of F	FHWA.		
Receiver	APPLYCHIAL MARKET MINISTER AND												
Name	No. #DUs	Existing	No Barrier	er					With Barrier				
		LAeq1h	LAeq1h		트	Increase over existing	r existing	Type	Calculated	Noise Reduction	ction		
			Calculated	ed Crit'n		Calculated	Crit'n Sub'l Inc	Impact	L.Aeq1h	Calculated	Goal	Calculated minus	_
***************************************		dBA	dBA	dBA	8	8	dB		dBA	dB	dB	Goal	
Receiver14	14	1	0.0	68.7	99	68.7	7 10	Snd Lv	66.7	7 2.0			3.0
Receiver19	19	1	0.0	68.4	99	68.4			62.2			2	1.2
Receiver22	22	1 0	0.0	70.8	99	70.8	8 10	Snd Lvl	63.6				2.2
Receiver58	28	1 0	0.0	0.69	99	69.0	0 10	Snd Lvl	61.5	7.5			2.5
Receiver63	63	1	0.0	72.7	99	72.7	7 10	Snd Lvl	65.5	7.2			2
Receiver64	64	10	0.0	62.4	99	62.4	10		57.2	5.2			0.2
Receiver65	99	1 0		68.6	99	68.6		Snd Lvl	62.4				1.2
Receiver66	99	1 0	0.0	62.2	99	62.2	10		58.9				-1.7
Receiver68	89	1 0	0.0	63.7	99	63.7	7 10	-	58.5				0.2
Receiver70	0.2	1 0	0.0	8.39	99	65.8	8 10		59.6	6.2			1.2
Receiver71	71	1 0	0.0	. 2.89	99	68.7	7 10	Snd Lvl	62.7	0.9			10
Receiver79	62	1	0.0	57.1	99	57.1	10	1	51.5	5.6			0.6
Receiver80	80	1 0		60.0	99	0.09	0 10		53.6	6.4			4.
Receiver82	82	1 0	0.0	62.9	99	62.9	9 10		56.1	6.8			<u>6</u>
Receiver83	83	1 0	0.0	62.1	99	62.1		(54.7	7.4			2.4
Receiver84	84	1 0	0.0	64.9	99	64.9	10	-	57.4	7.5			2.5
Receiver85	85	1 0	0.0	63.2	99	63.2	2 10		56.7	6.5			5.
Roosevelt Elementary	95	7 0	0.0	68.4	99	68.4	4 10	Snd Lvl	61.0	7.4			2.4
Dwelling Units	# DNs	Noise	Reduction										
		Min	Avg	Мах									
		鲁	몆	용									
All Selected		24 2	2.0	6.1	7.5								
All Impacted		14 2	2.0	6.2	7.5								
I:\PROJECTS\4207\NOISE\TNM RUNS\TNM RE - EVALUATIO	S\TNM RE - EVAL	UATION\Seg4	,q4						-				
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40
5.2
22
NR Goal
All that meet

RESULTS: SOUND LEVELS					
All that meet NR Goal	22	5.2	6.5	7.5	

Voise	
1-75	

The Corradino Group							23 Septe	23 September 2014	4				
							TNM 2.5						
		-					Calculat	Calculated with TNM 2.5	4M 2.5			_	***
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 Seg	I-75 Noise Segment 3							·	:			
BARRIER DESIGN:	Braid	<u> </u>				*** **********		Average a State	e pavement ty highway ager	Average pavement type shall be used unless a State highway agency substantiates the use	ed unless ites the us	ψ.	
ATMOSPHERICS:	68	68 deg F, 50%	1% RH					of a diff	erent type wil	of a different type with approval of FHWA	FHWA.		
Receiver		İ	İ										
Name	No. #DUs			No Barrier					With Barrier	<u></u>			
		LAeq1h		LAeq1h	***************************************	Increase over existing	existing	Type	Calculated		ıction		
			Calc	Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	Ď
							Sub'l Inc					minus Goal	
		dBA	dBA		dBA	dВ	g B		dBA	dВ	g B	фB	
Receiver4	4	1	0.0	68.9	9	689 68.9		10 Snd Lvi		68.3	9.0	5	4.4
Receiver5	ស	Τ.	0.0	65.0		66 65.0		10	63.7		1.3	5	-3.7
Receiver6	9	1	0.0	62.3		66 62.3		10	61.1		1.2		3.8
Receiver7	7	_	0.0	61.6				10	60.7		6.0		1.4-
Receiver12	12	-	0.0	74.6				ĺ			0.1		4.9
Receiver13	13	-	0.0	69.4				10 Snd Lvl			0.7		-4.3
Receiver14	4	-	0.0	66.4				10 Snd Lvl			9.0	5	4.4
Receiver15	15	_	0.0	63.7				10	62.7		1.0		4.0
Receiver16	16	-	0.0	62.8				40	61	61.9	6.0	- 2	-4.1
Receiver17	17	1	0.0	63.3				10	61		1.4		-3.6
Receiver22	22	1	0.0	71.3		66 71.3		10 Snd Lvl		71.2 0.1	1		4 6
Receiver23	23	1	0.0	68.3				10 Snd Lvl		68.2 0.1	1		4 0.
Receiver24	24	-	0.0	60.1				10	59.4		0.7	2	4.3
Receiver25	25	1	0.0	61.5				10	09		0.6		4.4
Receiver26	56	₩.	0.0	62.0				10	. 61.0		1.0	5	4.0
Receiver27	27	1	0.0	62.6				10	61.6		1.0	2	-4.0
Receiver32	32	1.	0.0	73.2		66 73.2		10 Snd Lvi		.1 0.1	1	5	6.4
Receiver33	33	1	0.0	67.6		66 67.6		10 Snd Lvl		67.5	1		6.4
Receiver34	34	1	0.0	62.6				10	62.4		0.2		-4.8
Receiver35	35	_	0.0	60.7				10	60.3		0.4	2	4.6
Receiver36	36	-	0.0	62.5		66 62.5		10	61		1.0	2	0.4
Receiver37	37	-	0.0	62.4				01	61.5		6		4.
Receiver38	38	_	0.0	62.1	9	66 62.1		10	61.3	.3	8	7	4.2

I:\PROJECTS\4207\NOISE\TNM RUNS\TNM RE - EVALUATION\Seg5 Barrier on Fix

	99 99 99 99 99 99 99 99 99 99 99 99 99	64.5 64.5 62.9 61.9 62.2 62.4 772.9 63.1 63.1 62.0 77.5 62.0 77.5 62.0 77.5 62.0 77.5 62.0 77.5 62.0 77.5 62.0 77.5 62.0	10 Snd Lvl 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	65.4 60.9 60.9 60.0 60.0 61.3 61.3 61.3 61.0 60.6 60.6 60.6	2.0 2.0 3.6 3.6 3.6 4.7 1.1 1.2 1.3 3.6 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	2 2 2 2 2	-3.0 -1.4 -2.1 -2.5
45 1 0.0 46 1 0.0 48 1 0.0 49 1 0.0 50 1 0.0 51 1 0.0 52 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 60 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			60.9 60.0 60.1 61.3 61.3 61.3 61.3 61.3 61.0 61.0 60.6 60.6	3.6	2 2 2 2	-1.4
46 1 0.0 48 1 0.0 48 1 0.0 49 1 0.0 50 1 0.0 51 1 0.0 52 1 0.0 53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			60.0 60.9 61.3 61.3 61.3 61.3 61.0 60.6 60.6 60.4	2.5 1 1.1 1.3 2.5 1 1.1 1.1 1.3 2.5 1 1.1 1.1 1.3 2.5 1 1.1 1.1 1.3 2.5 1 1.1 1.3 2.5 1	Ω Ω Ω	-2.5
47 1 0.0 48 1 0.0 50 1 0.0 51 1 0.0 52 1 0.0 53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			60.1 60.1 61.3 61.3 61.3 61.3 61.0 60.6 60.6 60.6	2.5. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2	-2.5
48 4 0.0 49 1 0.0 50 1 0.0 52 1 0.0 53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 58 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 65 1 0.0 65 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			60.9 60.9 61.3 71.2 61.3 61.0 60.6 60.6 60.4	8. 1. 1. 1. 1. 1. 1. 8. 0	2	-3.2
49 1 0.0 51 1 0.0 52 1 0.0 53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 58 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			60.9 61.3 71.2 63.1 61.0 60.6 60.6 60.6	E. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		
50 1 0.0 51 1 0.0 53 1 0.0 54 1 0.0 56 1 0.0 56 1 0.0 57 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			61.3 61.3 63.1 61.0 60.6 60.6 60.4	1.1 7.1 1.8	ž	-3.7
51 1 0.0 53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 57 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			61.3 61.0 60.6 60.4 60.4	1.7 7.1 8.1 0.0	\$	-3.8
52 1 0.0 54 1 0.0 54 1 0.0 55 1 0.0 57 1 0.0 58 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 66 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99 99 99 99 99 99			61.2 61.3 61.0 60.6 60.5 60.4	1.8	5	-3.9
53 1 0.0 54 1 0.0 55 1 0.0 56 1 0.0 58 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 68 1 0.0 69 1 0.0	99 99 99 99 99 99 99 99			63.1 61.3 60.6 60.6 60.6 60.4 60.4	7.7 8.1	2	-3.3
54 1 0.0 56 1 0.0 57 1 0.0 58 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99 99			61.3 61.0 60.6 60.6 60.4 60.4	8. 6	2	-3.3
55 1 0.0 56 1 0.0 58 1 0.0 59 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 68 1 0.0 69 1 0.0	99 99 99 99 99			60.6 60.6 60.5 60.4 60.4	10	2	-3.2
56 1 0.0 58 1 0.0 59 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99		<u>1 </u>	60.6		5	-3.1
57 1 0.0 59 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99 99			60.5	1.9	ĘÇ,	-3.1
58 1 0.0 59 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99			60.4	1.8	2	-3.2
59 1 0.0 60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99 99			60.4	1.7	5	-3.3
60 1 0.0 61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99		i I	;	1.6	5	-3.4
61 1 0.0 62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99 99		1	67.1	4.4	5	9.0-
62 1 0.0 63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99 99			62.1	3.4	2	9.7
63 1 0.0 64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99		01	56.3	1.5	3	-3.5
64 1 0.0 65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0	99		01	58.9	0.7	2	4.3
65 1 0.0 66 1 0.0 67 1 0.0 69 1 0.0			01	59.5	1.9	5	بن 1.6
66 1 0.0 . 67 1 0.0 69 1 0.0	99		- 0)	59.6	2.0	2	-3.0
67 1 0.0 69 1 0.0	99		0,	59.5	2.0	5	-3.0
69 1 0.0	99		0	59.5	1.9	3	-3.1
	99		10 Snd Lvi	68.5	2.8	3	-2.2
1 0.0	99		0	55.0	1.7	သ	-3.3
	99		0	57.4	1.1	22	-3.9
_	99		10	57.5	8.0	2	-4.2
	99		0	58.5	9.0	5	4.4
. 74 1	99	59.9		58.9	1.0	2	4.0
1 0.0	99			59.0	1.3	5	-3.7
76 1	99			58.9	1.5	2	-3.5
	99	68.6	0 Snd Lvl	67.1	1.5	5	-3.5
1 0.0	99		1 0	55.8	6.0	22	4.1
80 1 0.0	99		0.	96.0	6.0	ಕು	4.1
81 1	99			57.3	1.0	വ	4.0
1 0.0	99		0	58.1	4.	5	-3.6
83 1 0.0	99	59.5		58.6	6.0	ů.	-4.1
1 0.0	99		10 Snd Lvl	65.3	2.6	£O.	-2.4
1 0.0	99	61.4	-	58.5	2.9	C)	-2.1
Receiver90 1 0.0 61.8	99	61.8	10	59.6	2.2	5	-2.8

RESULTS: SOUND LEVELS

RESULTS: SOUND LEVELS						1-75	1-75 Noise					
Receiver91	91	0	0.0	60.3	99	60.3	10		58.9	1.4	2	-3.6
Receiver92	. 26	0	0.0	59.8	99	59.8	10		58.9	6.0	5	4
Receiver93	93	0.0		60.2	99	60.2	10	1	59.3	6.0	5	4.
Receiver94	94	0.0		60.3	99	60.3	10		59.4	6.0	ယ	4
Receiver222	222	0	0.0	69.2	99	69.2	10	Snd Lvi	68.5	0.7	5	-4.3
Receiver223	223	0.0		65.4	99	65.4	10	1	64.4	1.0	5	4.0
Receiver225	225	0.0		65.4	99	65.4	10	1	64.8	9.0	5	-4.4
Receiver226	226	0	0.0	66.4	99	66.4	10	Snd Lvl	66.1	0.3	22	7.4-
Receiver227	227	0.0		67.4	99	67.4	10	Snd Lvl	67.0	0.4	2	-4.6
Receiver228	228	0.0		65.2	99	65.2	10	1	64.6	9.0	5	4.4
Receiver229	. 528	0	0.0	65.6	99	65.6	10		65.1	0.5	Ω.	4.5
Receiver230	230	0.0		66.4	99	66.4	10	Snd Lvl	0.99	0.4	5.	4.6
Receiver231	231	0	0.0	64.7	99	64.7	10		64.1	9.0	5	4.4
Receiver232	232	0.0		65.1	99	65.1	10		64.5	9.0	22	4.4
Receiver233	233	0.0		65.7	99	65.7	9	*******	65.2	0.5	C)	4.5
Dwelling Units	# DUs	Noise	Reduction		A CONTRACTOR OF THE CONTRACTOR			****				
		Min	Avg	Max								
		фB	dВ	dВ	***************************************							
All Selected	6/	0.1		1.3	4.4							
All Impacted	18	0.1			4.4							
All that meet NR Goal		0.0		0.0	0.0							_

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The Corradino Group								23 Septer	23 September 2014				
John Bucher								TNM 2.5	i i				_
RESULTS: SOUND LEVELS								Calculate	Caiculated with 1 NW 2.5	1 2.5			
PROJECT/CONTRACT:		-75 Noise	se										
RUN:	S	Segment 3	nt 3										i
BARRIER DESIGN:	z	North							Average	pavement type	Average pavement type shall be used unless	ed unless	
		,		,					a State hi	ghway agenc	a State highway agency substantiates the use	es the use	
ATMOSPHERICS:	.	68 deg F,	F, 50% RH	<u>ا</u>					of a diffe	ent type with	of a different type with approval of FHWA	HWA.	
Receiver									The second secon				
Name	No.	#DUs	Existing	No Barrier	er					With Barrier			
-			LAeq1h	LAeq1h			Increase over existing	existing -	Type	Calculated	Noise Reduction	tion	
				Calculated	ed Crit'n		Calculated	Critin	Impact	LAeq1h	Calculated	Goal	Calculated
								Sub'l Inc					minus Goal
			dBA	dBA	dBA	0	dB	dВ		dBA	dВ	dB	дB
Receiver99	66		0.0		67.8	99	8.79	10	Snd Lvl	65.6	2.2		-2.8
Receiver100	100	-	0.0		63.2	99	63.2	10		62.4	0.8		5 4.2
Receiver104	104	1	0.0		72.6	99	72.6	10	Snd Lvl	70.8	1.8		-3.2
Receiver105	105	1	0.0		72.4	99	72.4	10	Snd Lvl	70.7	1.7	-	5 -3.3
Receiver106	106	1	0.0		71.9	99	71.9	10		70.4	1.5		.3.5
Receiver107	107	_	0.0		71.3	99	71.3	10		6.69			
Receiver108	108	_	0.0		9.07	99	70.6	10	Snd Lvl	69.4	1.2		.3.8
Receiver109	109	_	0.0		70.1	99	70.1		Snd Lvl	0.69	1.1		5 -3.9
Receiver110	110	_	0.0		69.2	99	69.2			68.2			.4.0
Receiver111	111	_	0.0		68.7	99	68.7	, 10	Snd Lvl	67.8	0.9		1.4-
Receiver112	112	_	0.0		97.9	99	67.6		Snd Lvl	66.8	0.8		-4.2
Receiver114	114	_	0.0		63.5	99	63.5	10		62.2	1.3		5 -3.7
Receiver115	115	1	0.0		63.2	99	63.2	10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	61.8	1,4		-3.6
Receiver116	116	_	0.0		62.8	99	62.8) 10		62.0	0.8		4.2
Receiver117	117	τ	0.0		61.2	99	61.2	10		60.4			4.2
Receiver118	118	·~	0.0		60.1	99	60.1	10		59.0	1.1		5 -3.9
Receiver119	119	1	0.0		58.7	99	58.7	10	(6.73	0.8		-4.2
Receiver120	120	1	0.0		58.9	99	58.9	10	-	58.5	0.4		-4.6
Receiver121	121	-	0.0		59.0	99	59.0	10		58.2	0.8		5 -4.2
Receiver122	122	1	0.0		59.1	99	59.1	10		58.0	1.1		-3.9
Receiver123	123	_	0.0		59.3	99	59.3]	58.4			5 -4.1
Receiver124	124	-	0.0		29.7	99	59.7	10		58.5	1.2		
Receiver125	125	7	0.0		9:92	99	75.6	10	Snd Lvl	72.6	3.0		-2.0

I:\PROJECTS\4207\NO\SE\TNM RUNS\TNM RE - EVALUATION\Seg5 Barrier on Fix

I-75 Noise

NEOCHO: COOM ELVELO							201010					
Receiver126	126	_	0.0	74.6	99	74.6	10	Snd Lvl	71.8	2.8	2	-2.2
Receiver127	127	1	0.0	74.3	99	74.3	10	Snd Lvl	71.3	3.0	ъņ.	-2.0
Receiver128	128	₩.	0.0	73.9	99	73.9	10	Snd LvI	70.4	3.5	2	-1.5
Receiver129	129	-	0.0	73.5	99	73.5	10	Snd Lvl	69.3	4.2	2	-0.8
Receiver131	131	~	0.0	62.9	99	62.9	10		65.3	9.0	ις:	4.4
Receiver132	132	۲	0.0	65.0	99	65.0	10	1	64.4	9.0	5	4 4
Receiver133	133	7	0.0	64.0	99	64.0	10		63.1	6.0	40	4
Receiver134	134	/	0.0	64.1	99	64.1	10		62.4	1.7	2	-3.3
Receiver135	135	4-	0.0	65.5	99	65.5	10	weeke	62.2	e. e.	ည	-1.7
Receiver136	136	-	0.0	66.5	99	66.5	10	Snd LvI	62.9	9.0	5	4.4
Receiver138	138	-	0.0	70.3	99	70.3	10	Snd LvI	66.2	4.1	5	-0.9
Receiver139	139	-	0.0	68.1	99	68.1	10	Snd Lvl	63:4	4.7	5	-0.3
Receiver140	140	-	0.0	68.5	99	68.5	10	Snd Lvl	62.6	5.9	5	0.0
Receiver141	141	-	0.0	73.1	99	73.1	10	Snd Lvl	66.2	6.9	22	1.9
Receiver142	142	-	0.0	72.4	99	72.4	10	Snd Lvl	65.3	7.1	5	2.1
Receiver143	143	-	0.0	64.8	99	64.8	10	Western .	59.1	5.7	S	0.7
Receiver144	144	~	0.0	629	99	62.9	10	7	59.8	6.1	5	1.1
Receiver145	145	4	0.0	8.99	99	8.99	10	Snd LvI	60.7	6.1	5	1.1
Receiver146	146	1	0.0	0.99	99	66.0	10	Snd LvI	60.1	5.9	വ	0.9
Receiver147	147	1	0.0	67.5	99	67.5	10	Snd Lv!	61.1	6.4	5	1.4
Receiver150	150	1	0.0	62.6	99	62.6	10	l	60.5	2.1	ಬ	-2.9
Receiver151	151	_	0.0	61.6	99	61.6	10		59.6	2.0	ည	-3.0
Receiver152	152	1	0.0	61.4	99	61.4	10	1	59.0	2.4	9	-2.6
Receiver153	153	1	0.0	63.0	99	63.0	10		59.0	4.0	5	-1.0
Receiver154	154	1	0.0	0.0	99	0.0	10	invalid	0.0	0.0	ιΩ	0.0
Receiver155	155	1	0.0	63.7	99	63.7	10		59.9	3.8	2	-1.2
Receiver156	156	1	0.0	64.3	99	64.3	10	-	59.9	4.4	S	-0.6
Receiver157	157	1	0.0	0.0	99	0.0	10	invalid	0.0	0.0	2	0.0
Receiver158	158	1	0.0	65.1	99	65.1	10	-	60.2	4.9	ഹ	-0.1
Receiver160	160	/	0.0	77.8	99	77.8	10	Snd Lvl	71.1	6.7	ഹ	1.7
Receiver161	161	1	0.0	77.2	99	77.2	10	Snd Lví	70.2	7.0	ıç,	2.0
Receiver162	162	1	0.0	76.5	99	76.5	10	Snd Lvl	69.3	7.2	5	2.2
Receiver163	163	1	0.0	72.4	99	72.4	10	Snd Lvl	64.3	8.1	S	3.1
Receiver164	164	1	0.0	74.8	99	74.8	10	Snd Lvl	66.5	8.3	2	3.3
Receiver165	165	1	0.0	73.9	99	73.9	10	Snd Lvl	64.4	9.5	2	4.5
Receiver167	167	1	0.0	79.9	51	79.9	10	Snd Lvl	74.9	5.0	5	0.0
Receiver169	169	_	0.0	78.7	51	78.7	10	Snd Ľvl	73.8	4.9	5	-0.1
Receiver170	170	-	0.0	7.97	51	76.7	10	Snd Lvl	70.6	6.1	5	1.1
Receiver171	171	1	0.0	77.4	51	77.4	10	Snd Lv!	71.2	6.2		1.2
Receiver172	172	_	0.0	77.9	51	77.9	10	Snd Lvi	71.7	6.2	5	1.2
Receiver173	173	_	0.0	76.3	51	76.3	10	Snd Lvl	9.69	6.7	5	1.7
INTIGNICO MINTIGOSICINIZACE (STOCI COCCI	70 00		100 mm	i i								

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Receiver 176 176 1 0.0 74.7 Receiver 178 177 1 0.0 72.2 Receiver 179 178 1 0.0 68.4 Receiver 181 180 1 0.0 68.9 Receiver 182 182 1 0.0 68.9 Receiver 183 183 1 0.0 68.9 Receiver 184 184 1 0.0 68.1 Receiver 185 185 1 0.0 66.4 Receiver 186 188 1 0.0 64.2 Receiver 187 188 1 0.0 64.3 Receiver 188 189 1 0.0 64.3 Receiver 192 189 1 0.0 64.3 Receiver 194 190 1 0.0 64.3 Receiver 195 196 1 0.0 64.3 Receiver 196 196 1 0.0 64.3 Receiver 197 197		66 74.7 66 68.9 66 68.9 66 68.9 66 68.9 66 65.9 66 65.9 66 65.0 66 65.0 66 64.2 66 64.2 66 64.2 66 64.3 66 64.3 66 64.3 66 64.3	10 Snd Lvl 10 Snd Lvl 10 Snd Lvl 10 Snd Lvl 10 Snd Lvl 10 10 10 Snd Lvl 10 10 Snd Lvl 10 10 10 Snd Lvl 10 10 Snd Lvl 10 10 Snd Lvl 10 Snd Snd Snd Snd Snd Snd Snd Snd Snd Snd	60.3 60.2 60.4 60.4 60.4 60.0 60.0 60.0 60.0 60.0	14.4 12.0 12.0 12.0 12.0 12.0 13.0 13.0 14.4 14.4 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
177 1 0.0 178 1 0.0 180 1 0.0 181 1 0.0 182 1 0.0 183 1 0.0 184 1 0.0 185 1 0.0 186 1 0.0 187 1 0.0 188 1 0.0 189 1 0.0 190 1 0.0 191 1 0.0 192 1 0.0 193 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 197 1 0.0 198 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 209 1 0.0 </th <th></th> <th></th> <th></th> <th>60.2 60.6 60.6 61.3 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60</th> <th>12.0 8.3 9.9 9.9 9.0 9.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0</th> <th></th>				60.2 60.6 60.6 61.3 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60	12.0 8.3 9.9 9.9 9.0 9.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	
178 1 0.0 179 1 0.0 181 1 0.0 182 1 0.0 184 1 0.0 185 1 0.0 186 1 0.0 187 1 0.0 188 1 0.0 190 1 0.0 191 1 0.0 192 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 198 1 0.0 199 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 209 1 0.0 209 1 0.0 209 1 0.0 209 1 0.0 209 1 0.0 </td <td></td> <td></td> <td></td> <td>60.4 61.8 61.8 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60</td> <td>8.8 8.9 9.9 9.9 9.0 9.0 9.0 9.0 9.0 9</td> <td></td>				60.4 61.8 61.8 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60	8.8 8.9 9.9 9.9 9.0 9.0 9.0 9.0 9.0 9	
179 1 180 1 181 1 182 1 183 1 184 1 185 1 186 1 187 1 188 1 189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 206 1 206 1 207 1 208 1 209 1 0				61.0 61.3 61.3 60.0 60.0 60.0 60.0 59.0 59.5 59.0 59.5 57.9 57.9 57.9 57.1	8.9 9.9 9.0 9.0 9.0 9.0 9.0 9.0 9	
180 1 181 1 182 1 183 1 184 1 185 1 186 1 187 1 188 1 188 1 188 1 189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 100 200 201 202 203 1 204 1 205 1 206 1 207 1 208 1 209 1 209 1 <t< td=""><td></td><td></td><td></td><td>61.0 61.3 60.0 60.0 60.0 60.0 60.0 59.0 58.2 58.9 57.9 57.9 57.9 57.4 57.5</td><td>8.9 9.5 9.0 6.0 0.0 0.0 5.4 5.5 5.0 6.0 6.0 7.3 7.3</td><td></td></t<>				61.0 61.3 60.0 60.0 60.0 60.0 60.0 59.0 58.2 58.9 57.9 57.9 57.9 57.4 57.5	8.9 9.5 9.0 6.0 0.0 0.0 5.4 5.5 5.0 6.0 6.0 7.3 7.3	
181 1 182 1 183 1 184 1 184 1 185 1 186 1 187 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 199 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 209 200 204 1 205 1 206 207 1 208 1 209 1 0.0				61.3 60.0 60.0 60.0 60.0 60.0 60.0 59.0 58.2 58.3 58.3 56.8 57.9 57.4 57.4	9.8 9.8 5.0 0.0 0.0 5.4 5.5 5.5 7.3 7.3 7.3	
182 1 183 1 184 1 185 1 186 1 187 1 188 1 188 1 189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 199 1 190 0 198 1 199 1 199 1 199 1 199 1 199 1 199 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 1 200 1 201 0 202 1 203 1 204				61.8 60.0 60.0 0.0 60.0 60.0 60.0 60.0 60.	9.8 6.0 6.0 6.0 5.4 7.3 7.3 7.3	
183 1 0.0 184 1 0.0 185 1 0.0 186 1 0.0 187 1 0.0 189 1 0.0 190 1 0.0 192 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 197 1 0.0 198 1 0.0 200 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 200 1 0.0 </td <td></td> <td></td> <td></td> <td>60.0 0.0 0.0 59.0 58.9 58.2 57.9 57.9 57.1</td> <td>6.0 5.0 6.0 6.0 6.0 7.3 7.3 7.3 7.3</td> <td></td>				60.0 0.0 0.0 59.0 58.9 58.2 57.9 57.9 57.1	6.0 5.0 6.0 6.0 6.0 7.3 7.3 7.3 7.3	
184 1 0.0 185 1 0.0 186 1 0.0 188 1 0.0 189 1 0.0 190 1 0.0 192 1 0.0 193 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0				60.0 0.0 59.0 58.2 58.2 57.9 56.8 56.8 57.1	5.0 0.0 5.0 5.0 6.0 7.3 8.3 7.3 8.7 7.8	
185 1 186 1 187 1 188 1 188 1 189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 200 300 <tr< td=""><td></td><td></td><td></td><td>59.0 59.0 58.2 58.2 57.9 56.8 56.8 57.4 57.4</td><td>5.4 5.5 5.0 6.0 10.8 7.3 7.3</td><td></td></tr<>				59.0 59.0 58.2 58.2 57.9 56.8 56.8 57.4 57.4	5.4 5.5 5.0 6.0 10.8 7.3 7.3	
186 1 0.0 188 1 0.0 189 1 0.0 190 1 0.0 191 1 0.0 192 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 198 1 0.0 199 1 0.0 200 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 206 1 0.0 207 1 0.0				59.0 58.2 58.2 57.9 56.8 56.8 57.1 57.1	5.4 5.5 5.0 6.0 11.3 6.3 7.3	
187 1 188 1 0.0 190 1 0.0 191 1 0.0 192 1 0.0 193 1 0.0 194 1 0.0 195 1 0.0 196 1 0.0 197 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 209 1 0.0				59.5 58.9 58.9 57.9 56.8 58.0 57.4 57.4	5.5 5.0 6.0 11.3 6.3 7.3	
188 1 189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 199 1 190 0 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 0 208 1 209 1 200 0 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 1 200 1 200 1 200 1 200 1 200 1 200 1 200 1 200 1 200 1 200 1 200				58.9 57.9 56.8 56.8 57.4 57.4	5.0 6.0 11.3 6.3 7.3	
189 1 190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 198 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 208 1 209 208 1 209 208 1 209 208 1 209 208 1 209 208 1 209 208 1 209			1	58.2 57.9 56.8 58.0 57.1 57.1	6.0 10.8 11.3 6.3 7.3 7.8	
190 1 191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 200			1	56.8 58.0 58.0 57.1 57.1	10.8 6.3 6.3 7.3 7.8	
191 1 192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 208 1 209 208 1 209 208 1 209				56.8 58.0 57.4 57.1 57.5	11.3 · 6.3 7.3 7.8	
192 1 193 1 194 1 195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 0.0 208 1 209 0.0 206 1 207 1 208 1 208 1 208 1 208 1 209 208 1 209			1 1 1 1 1	58.0 57.4 57.1 57.5	6.3 7.8 7.8	
193 1 194 1 195 1 196 1 197 1 198 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 1 200 1 205 1 206 1 207 1 208 1 208 1 209 208 1 0.0				57.4 57.1 57.5	7.3	
194 1 195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 207 1 208 1 208 1 208 1 208 1 209				57.1	7.8	
195 1 196 1 197 1 198 1 199 1 200 1 201 1 202 1 203 1 204 1 205 1 206 1 207 1 208 1 209 1 200 0 204 1 205 1 206 1 207 1 208 1 208 1 208 1 208 1 208 1 209				57.5		
196 1 197 1 198 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 208 1 0.0					9.9	
197 1 0.0 198 1 0.0 200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0 208 1 0.0 208 1 0.0	-			57.7	5.7	
198 1 199 1 200 1 201 1 202 1 203 1 203 1 204 1 205 1 206 1 207 1 208 1 208 1 208 1 208 1 208 1 208 1 209				57.8	4.5	
200 1 201 1 202 1 203 1 203 1 204 1 205 1 206 1 207 1 208 1 208 1 208 1 208 1 209				57.7	3.9	
200 1 0.0 201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0			1	60.0	11.6	
201 1 0.0 202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0			10 Snd Lvl	8.09	11.6	5 6.6
202 1 0.0 203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0				59.3	10.0	
203 1 0.0 204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0		66 64.2	10	58.1	6.1	
204 1 0.0 205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0			10	58.5	6.9	
205 1 0.0 206 1 0.0 207 1 0.0 208 1 0.0		66 64.1	10	57.7	6.4	1.4
206 1 0.0 207 1 0.0 208 1 0.0			10	57.2	7.6	
207 1 0.0 208 1 0.0			10	56.6	4.5	
208 1 0.0		0.0	10 invalid	0.0	0.0	5 0.0
				0.0	0.0	-
			10 Snd Lvl	59.1	8.0	3.0
			1	58.5	8.1	
		65.8	10	58.5	7.3	5 2.3
			10	57.7	6.6	1.6
				57.1	6.2	1.2
1 0.0			10	56.7	5.8	5 0.8
		61.9	10	56.3	5.6	5 0.6
			10	56.1	5.0	5 0.0

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RESULTS: SOUND LEVELS

KESOLIS: SOUND LEVELS						<u>c)-</u>	esion c/-					
Receiver217	217	0.0	0.0		99	0.0	10	invalid	0.0	0.0	5	0:0
Receiver218	218	1 0.0	0 60.6		99	9.09	10		57.7	2.9	2	-2.1
Receiver242	242	1 0.0	0 77.0		51	77.0	10	Snd LvI	70.9	6.1	2	1.1
Receiver244	244	0.0	0 64.3		99	64.3	10		61.5	2.8	LC)	-2.2
Dwelling Units	# DUs	#DUs Noise R	Reduction									
		Min	Avg	Max								
		dВ	dВ	dВ								
All Selected	109	0.0	0 4.7		14.4							
All Impacted	52	2 0.6	6.0		14.4							
All that meet NR Goal	55	5 5.0	7.4		14.4							
				-								

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The Corradino Group						23 Septen	23 September 2014				
John Bucher						TNM 2.5 Calculate	TNM 2.5 Calculated with TNM 2.5	2.5			
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	1-75 1	i-75 Noise Stu	dy	1						- ·	<u> </u>
RON: BARRIER DESIGN:	Sego NB1	Seg5a - 11 mili NB1	le to Gardenia - Walls	Walls			Average p	avement type	Average pavement type shall be used unless	unless	
ATMOSPHERICS:	, 589	68 dea F. 50% RH	Ŧ				a State high	jhway agency ent tvne with	a State highway agency substantiates the use of a different type with annoval of EHWA	the use	
Receiver											
Name	No. #DUs	Existi	ng No Barrier					With Barrier			
	.=	LAeq1h	h LAeq1h	The state of the s	Increase over existing	existing	Type	Calculated	Noise Reduction	on	
			Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
					\	Sub'l Inc				<u> </u>	minus Goal
		dBA	dBA	dBA	dB	dB		dBA	dB d	dB dB	8
Receiver8	8	1	0.0	9 6.89	6.89 68.9	10	Snd Lvl	65.6	3.3	2	-1.7
Receiver9	6	~	0.0	66.0	99 99	10	Snd Lvl	63.9	2.1	Ŋ	-2.9
Receiver10	10	_			66 64.8	10	-	62.6		5	-2.8
Receiver11	11	-			66 63.4	10		61.0	2.4	2	-2.6
Receiver12	12	-			66 71.8			69.6		£	-2.8
Receiver13	13	/				10		64.6	3.1	5	-1.9
Receiver14	14	_				10	Snd LvI	63.2	3.2	5	-1.8
Receiver15	15	-					1000	61.9		3	-2.0
Receiver16	16	_				10	*****	61.0	3.1	ည	-1.9
Receiver17	17	1	0.0 72.7	.7 66	6 72.7	10	Snd Lvl	67.9	4.8	2	-0.2
Receiver18	18	1				10	1	60.3	3.9	5	-1.1
Receiver19	19	-					ļ	61.0	3.9	5	1.1
Receiver20	20	_				10	1	61.8		ಆ	-1.0
Receiver21	21	V						62.7	4.3	ល	-0.7
Receiver22	22	1	0.0 68.3	.3 66	68.3	10	Snd Lvi	63.8	4.5	5	-0.5
Receiver23	23	1	0.0	.1 66	69.1	10	Snd Lvl	64.6	4.5	5	-0.5
Receiver24	24	_	0.0 70.3	.3 66	5 70.3	10	Snd Lvl	65.3	5.0	5	0.0
Receiver25	25		0.0	72.9 66	5 72.9	10	Snd Lvl	68.9	4.0	5	-1.0
Receiver26	26	1	0.0 70.2		3 70.2	10		65.9	4.3	22	-0.7
Receiver27	27	1	0.0	.5 66		10	Snd Lvl	64.1	4.4	5	9.0
Receiver28	28	1		.3 66	5 67.3	10	Snd Lvl	63.1	4.2	ഹ	-0.8
Receiver29	29	-	0.0 66.3	.3 66	5 66.3		Snd Lvl	62.2	4.1	5	6.0-
Receiver30	30	1	0.0			10	1	61.5	4.2	သ	-0.8

I-75 Noise Study

NESOCIO, SOUND LEVELS						c/ <u>-</u>	esion c/-	stuay				
Receiver31	31	1	0.0	64.9	99	64.9	10		9.09	4.3	5	-0.7
Receiver32	32	1	0.0	64.4	99	64.4	10	t and the same of	60.1	4.3	5	-0.7
Receiver33	33	1	0.0	76.7	99	76.7	10	Snd LvI	70.7	6.0	2	1.0
Receiver34	34	7	0.0	73.1	99	73.1	10	Snd Lvl	65.5	7.6	2	2.6
Receiver35	35	_	0.0	70.6	99	70.6	10	Snd Lvl	63.4	7.2	22	2.2
Receiver36	36	<i>****</i>	0.0	68.9	99	68.9	10	Snd Lvl	62.5	6.4	5	1.4
Receiver37	37	7"	0.0	6.79	99	6.79	10	Snd Lvl	62.1	5.8	ഗ	0.8
Receiver38	38	1	0.0	67.3	99	67.3	9	Snd Lvl	61.7	5.6	2	9.0
Receiver39	39		0.0	9.99	99	9.99	10	Snd LvI	61.2	5.4	5	0.4
Receiver40	40	1	0.0	65.7	99	65.7	10		9.09	5.1	2	0.1
Receiver42	42	1	0.0	75.1	99	75.1	9	Snd Lvi	69.1	6.0	5	1.0
Receiver43	43	1	0.0	72.1	99	72.1	10	Snd Lvl	65.4	6.7	5	1.7
Receiver44	44	-	0.0	70.3	99	70.3	10	Snd Lvl	63.7	9.9	2	1.6
Receiver45	45	1		69.3	99	69.3	19	Snd Lvl	62.7	9.9	2	1.6
Receiver46	46	7		68.8	99	68.8	9	Snd Lvl	62.2	6.6	2	1.6
Receiver47	47	7		67.8	99	67.8	10	Snd LvI	61.5	6.3	22	1.3
Receiver48	48	-	0.0	67.2	99	67.2	19	Snd LvI	61.5	5.7	5	0.7
Receiver49	49	1		66.5	99	66.5	10	Snd Lvl	61.6	4.9	5	-0.1
Receiver50	909			75.8	99	75.8	19	Snd Lvl	72.0	3.8	3	-1.2
Receiver51	51	-		71.1	99	71.1	9	Snd Lvl	67.5	3.6	5	-1.4
Receiver52	52	1	0.0	70.5	99	70.5	19	Snd Lvl	66.2	4.3	Ω.	-0.7
Receiver53	53	1		69.5	99	69.5	10	Snd Lvl	65.4	4.1	22	-0.9
Receiver54	54	1		68.8	99	68.8	10	Snd Lvl	64.8	4.0	5	-1.0
Receiver55	55	1 (0.0	68.1	99	68.1	9	Snd Lvl	64.2	3.9	5	-1.1
Receiver56	56	1 (67.3	99	67.3	2	Snd LvI	63.7	3.6	5	4.1-
Receiver57	22	1	0.0	77.1	99	77.1	9	Snd LvI	73.6	3.5	2	-1.5
Receiver58	28	1	0.0	73.7	99	73.7	9	Snd Lvl	67.1	9.9	ಭ	1.6
Receiver59	29	1	0.0	71.7	99	7.1.7	9	Snd LvI	66.3	5.4	Ω.	0.4
Receiver60	09	1		9.07	99	9.07	10	Snd Lvl	66.8	3.8	Ş	-1.2
Receiver61	61	1	0.0	69.7	99	69.7	10	Snd Lvl	66.2	3.5	C	-1.5
Receiver62	62	1		0.69	99	0.69	\$	Snd Lvl	0.99	3.0	5	-2.0
Receiver63	63	1		68.4	99	68.4	10	Snd Lvl	65.6	2.8	5	-2.2
Receiver64	64	1		67.8	99	8.79	5	Snd LvI	65.1	2.7	5	-2.3
Receiver65	65	1	0.0	67.2	99	67.2	5	Snd Lví	64.6	2.6	c)	-2.4
Dwelling Units	# DUs	Noise	Reduction			THE PROPERTY OF THE PARTY OF TH						
		Min	Avg	May								
		фB	фB	dB								
All Selected	57		2.1	4.4	2.6							
All Impacted	46		2.1	4.6	7.6							
All that meet NR Goal	-		0.0	6.1	7.6							

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The Corradino Group						23 Septe	23 September 2014					
John Bucher						TNM 2.5					***	
DECILITE: COLIND EVEL C						Calculat	Calculated With I NM 2.5	1.2.5				
RESULIS: SUOND LEVELS PROJECT/CONTRACT: RIIN:	1-75 Sed5	l-75 Noise Study Seg5a - 11 mile t	idy le fo Gardenia - Walls	Walls								•
BARRIER DESIGN:	NB2			9			Average	Average pavement type shall be used unless	shall be us	ed unless		
		i I	į				a State hi	a State highway agency substantiates the use	y substantiat	tes the use		
ATMOSPHERICS:	68 d	68 deg F, 50% RH	RH				of a differ	of a different type with approval of FHWA	approval of	FHWA.		
Receiver												
Name	No. #DUs	s Existing	g No Barrier					With Barrier				
		LAeq1h	LAeq1h		Increase	Increase over existing	Туре	Calculated	Noise Reduction	ction		
			Calculated	Crit'n	Calculated		Impact	LAeq1h	Calculated	Goal	Calculated	당
						Sub'l Inc					minus	
		dBA	dBA	dBA	dB	dB		dBA	фВ	ф	gg Gg	
Receiver160	160	4	0.0		99	79.3	10 Snd Lvl	74.5	4	8 5		0.2
Receiver161	161	4	0.0 78.0		99	78.0	10 Snd Lvl	71.4	9.9	5		1.6
Receiver162	162	4	0.0 72.8		99	72.8	10 Snd Lvl	64.9	7.9	5		2.9
Receiver163	163)	0.0 49.0		99	49.0	10	48.7	0.3	5		4.7
Receiver164	164	4	0.0		99	47.8 1	10	47.7	0.1	2		4. Q
Receiver165	165	4	0.0		99		10	49.5	0.2	5		4.8
Receiver166	166	4			99			49.9		5		4.8
Receiver167	167	4			99	٠.		64.7			-	3.2
Receiver168	168	4	0.0		99	77.6	10 Snd Lvl	70.1	7.5	5		2.5
Receiver169	169	4					10 Snd Lvl	73.1	5.8	3 5		9.0
Receiver170	170	4				69.3	10 Snd Lvl	63.2	6.1	5		1.1
Receiver171	171	4					10	49.4	0.4			4.6
Receiver172	172	4					10	48.3	0.8	3 5		4.2
Receiver173	173	4					10	47.5	0.4	1 5		4.6
Receiver174	174	4	0.0			49.1	10	48.1	1.0	5		4.0
Receiver191	191	4 (63.0	10	62.6	0.4	5		4.6
Receiver192	192	4 (-		99		10	62.1	8.0	3 5		-4.2
Receiver193	193	4 (0.0 61.9		99		10	58.0	3.9	5		1.1
Receiver194	194	4					10	56.9	5.3			0.3
Receiver195	195	4					10	56.5	7.0	5		2.0
Receiver196	196						10	56.2		5		6.
Receiver197	197	4					10	55.8		5		0.8
Receiver198	198		0.0 61.5		99	61.5	10	55.9	5.6			9.0

RESULTS: SOUND LEVELS

RESULIS: SOUND LEVELS						<u> </u>	-75 Noise Study	Study				
Receiver200	200	1	0.0	62.8	99	62.8	10		6.09	1.9	3	-3.1
Receiver201	201	0	0.0	71.7	99	71.7	10	Snd Lvl	68.1	3.6	2	4.1-
Receiver202	202	1	0.0	69.5	99	69.5	10	Snd Lvl	64.5	5.0	2	0.0
Receiver203	203	1	0.0	67.6	99	9.79	10	Snd Lvl	63.6	4.0	2	-1.0
Receiver204	204	-	0.0	65.3	99	65.3	9	5.544	61.9	3.4	2	-1.6
Receiver 205	205	0	0.0	68.6	99	68.6	10	Snd Lvl	65.5	3.1	5	1.9
Receiver206	206	1	0.0	66.3	99	66.3	5	Snd Lvi	63.9	2.4	r.	-2.6
Receiver207	207	1 0	0.0	65.8	99	65.8	10		63.3	2.5	C)	-2.5
Receiver74	74	1	0.0	62.9	99	62.9	0,		59.3	9.9	2	1.6
Receiver210	210	1	0.0	66.5	99	66.5	10	Snd Lví	59.9	6.6	2	1.6
Receiver211	211	1	0.0	64.8	99	64.8	10		58.8	0.9	5	1.0
Receiver212	212	-	0.0	64.0	99	64.0	10		58.4	5.6	2	9.0
Receiver213	213	1	0.0	65.3	99	65.3	10		59.1	6.2	2	1.2
Receiver214	214	1	0.0	63.2	99	63.2	10		58.1	5.1	5	0.1
Receiver215	215	1 0	0.0	60.7	99	60.7	10		56.2	4.5	5	-0.5
Receiver216	216	1	0.0	58.0	99	58.0	10		54.8	3.2	5	-1.8
Receiver217	217	-	0.0	56.4	99	56.4	10		54.2	2.2	2	-2.8
Receiver218	218	1	0.0	57.2	99	57.2	10		54.9	2.3	3	-2.7
Receiver219	219	1 0	0.0	57.2	99	57.2	10		55.4	1.8	5	-3.2
Dwelling Units	*DO	\vdash	Noise Reduction				***************************************			, , , , , , , , , , , , , , , , , , ,		
		Min	Avg	Max								
		đВ	dB	dВ								
All Selected	111		0.1	3.9	8.2							
Ali Impacted		34 2		5.5	8.2			-				
All that meet NR Goal	4)	51 5	5.0	6.3	8.2							

Study	
5 Noise	
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The Corradino Group John Bucher								23 Septer TNM 2.5	23 September 2014 TNM 2.5 Calculated with TNM 2.5	r.			_
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	i o o	l-75 Noise Seg5a - 11		Study mile to Gardenia - Walls	. Walls	-				;	:		••••
ATMOSPHERICS:	, 6	55 I 68 deg F,	:, 50% RH	_	·	_			Average p a State hig of a differ	Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.	s snall be us y substantia approval of	ed unless tes the use FHWA.	
Receiver													
Name	No. #	#DOS E	Existing	No Barrier						With Barrier			
		<u></u>	LAeq1h	LAeq1h		ncn	Š	existing	Type	Calculated	Noise Reduction	ıction	
				Calculated	Crith	Calc	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus
		10	dBA	dBA	dBA	d.B		dB		dBA	<u>۾</u>	a a	60al
Receiver259	259	-	0.0			99	77.77	10	Snd Lv	76.0			-3.3
Receiver260	260	-	0.0			99	78.0			75.6	2.4		-
Receiver261	261	-	0.0			99	7.77			74.2			
Receiver262	262	-	0.0		77.6	99	77.6	10	Snd Lvl	73.1			5 -0.5
Receiver 263	263	1	0.0		77.2	99	77.2	10	Snd Lvl	72.1	5.1		5 0.1
Receiver264	264	_	0.0			99	7.97	10	Snd Lvl	70.5	6.2		5 1.2
Receiver265	265	٦	0.0			36	75.9	10	Snd Lvl	9.69	6.3		5 1.3
Receiver266.	266	-	0.0			99	75.1	10	Snd Lvl	0.69	6,1		1.1
Receiver267	267		0.0			99	74.3			68.6			5 0.7
Receiver268	268	-	0.0			99	74.1	10	Snd Lvi	68.6	5.5		5 0.5
Receiver 269	269	4-	0.0			99	74.1		Snd Lví	68.8	5.3		5 0.3
Receiver270	270	-	0.0			99	74.0	10		0.69	5.0		5 0.0
Receiver271	271	-	0.0			95	73.0	10		6.89	4.1		5 -0.9
Receiver309	309	-	0.0			99	67.8		Snd Lvl	66.7			5 -3.9
Receiver311	311	_	0.0			99	65.8	10		59.9			5 0.9
Receiver312	312	-	0.0			99	66.4			63.1	3.3		5 -1.7
Receiver313	313		0.0		67.2 (99	67.2	10	Snd Lvl	66.1	1.1		5 -3.9
Receiver314	314	-	0.0			99	67.9	10		60.4	7.5		5 2.5
Receiver316	316	-	0.0			99	66.0	10	Snd Lvl	61.2	4.8		5 -0.2
Receiver317	317	_	0.0			99	66.2	10	Snd Lvl	59.9	6.3		5 1.3
Receiver318	318	-	0.0			99	65.6	10		59.5	6.1		1.1
Receiver319	319	-	0.0			99	64.2			61.2	3.0		5 -2.0
Receiver321	321		0.0	-	64.0 6	99	64.0	10	-	9.09	3.4		5 -1.6

RESULTS: SOUND LEVELS

RESULTS: SOUND LEVELS				
Dwelling Units	# DUs	Noise Reduction	duction	
	,	Min	Avg	Max
		dВ	dВ	dВ
All Selected :	23	1.1	4.5	7.5
All Impacted	19	1.1	4.5	7.5
All that meet NR Goal	12	5.0	5.9	7.5

14.17		

The Corradino Group							23 Sept	23 September 2014	4				
							Calculat	I NIV 2.5 Calculated with TNM 2.5	NM 2.5				
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 No Seg6 -	I-75 Noise Study Seg6 - Gardenia	ıdy 11a to 12	I-75 Noise Study Seg6 - Gardenia to 12 Mile - Walls	Ils								
BARRIER DESIGN:	NB1a							Averag	Average pavement type shall be used unless	/pe shall be	used unles	Ñ	
ATMOSPHERICS:	68 de	68 dea F. 50%	% RH					a State	a State highway agency substantiates the use of a different type with approval of FHWA	ncy substar th approval	itiates the u	se	
Poroivor						***************************************							
	No. #DUS	Existing		No Barrier					With Barrier	ī			
		LAed1		LAea1h	AND AND AND AND AND AND AND AND AND AND	Increase over existing	er existing	Type	Calculated	1	Noise Reduction		
		<u>. </u>		Calculated	Crit'n	Calculated	Crit'n				ed Goal	Calcı	Calculated
							Sub'l Inc					minus	·
		Δαρ	Va C		Var	97	무		\$ 0 T	ą	0	E 609	
		Kan				an l	<u>a</u>	- 11	Han		dib	gp	
Receiver6	9	1	0.0	72.9	99			10 Snd Lvl		5.9	0.0	ις.	-5.0
Receiver7		7	0.0	73.4	99			10 Snd Lvl		73.4	0.0	£	-5.0
Receiver8	8		0.0	68.0	99		-			67.3	0.7	5	4.3
Receiver9	6		0.0	68.7	99			10 Snd LvI		65.2	3.5	വ	-1.5
Receiver10	10	_	0.0	62.8	99			10	Đ.	61.8	1.0	3	4.0
Receiver11	11	1	0.0	62.0	99	62.0		10	6.	61.5	0.5	£,	4.5
Receiver12	12	1	0.0	61.0	99	61.0		10	25	57.9	3.1	5	-1.9
Receiver13	13	1	0.0	62.2	99	62.2		10	5.	57.2	5.0	2	0.0
Receiver14		_	0.0	66.1	66	66.1		10 Snd Lvl		57.4	8.7	ಣ	3.7
Receiver15	15	_	0.0	66.1	99			10 Snd Lvl		56.0	10.1	ಬ	5.1
Receiver16	16	1	0.0	59.6	99	59.6		10	25	58.9	0.7	5	4.8
Receiver17		*	0.0	58.5	99			10	56	56.6	1.9	ည	بن 1.4
Receiver18	18	1	0.0	58.9	99	58.9		10	26	56.2	2.7	5	-2.3
Receiver19		1	0.0	59.8	99	59.8		10	26	56.7	3.1	τO.	-1.9
Receiver20		_	0.0	60.4	99	60.4		10	26	56.8	3.6	ري ا	4.1-
Receiver21	21	_	0.0	58.0	99	58.0		10	55	55.4	2.6	2	-2.4
Receiver22		1	0.0	64.9	99	64.9		10	57.	57.8	7.1	цО	2.1
Dwelling Units	# DNs		Noise Reduction	OU									
		Min	Avg		Мах								
		дB	фB		4B								
All Selected	17		0.0	3.2	10.1								
All Impacted)	9	0.0	3.8	10.1								
All that meet NR Goal	-	4	5.0	7.7	10.1								_

RESULTS: SOUND LEVELS

I-75 Noise Study

								'		,						
The Corradino Group								N	23 September 2014	nber 201	_					
John Bucher									TNM 2.5				,			
									Calculated with TNM 2.5	d with T	IM 2.5					
RESULTS: SOUND LEVELS				•											_	
PROJECT/CONTRACT:		I-75 Noise S	se Study	7	185	_										
KUN: BARRIER DESIGN:	, ,	SB1	Sego - Gardenia to 12 mile - Walls SB1	TO 12 IM	lie - wa	2				Average	Average pavement type shall be used unless	ype shal	be used	unless		
ATMOSPHERICS		RR dea'E 50	HG %05 H	ž			-			a State	a State highway agency substantiates the use	ncy sub	stantiates	the use		
		625	, 20, 4							O a cili	or a uniterative type with approval of FITTING	ırıı appır	JVal Ol FI	Ċ		T
Receiver				İ												
Name	- 9 -	#DNs	Existing	No Barrier	ırrier						With Barrier	ier				
			LAeq1h	LAeq1h	4		Increas	Increase over existing	xisting	Type	Calculated		Noise Reduction	lon		
				Calculated		Crit'n	Calculated	ted	Crit'n	Impact	LAeq1h	Calc	Calculated (Goal	Calculated	-
								, OJ	Sub'l Inc						minus	
															Goal	
			dBA	dBA	Q	dBA	фВ	0	dB		dBA	ВВ		dB	9	
Receiver23	23	7-	0	0.0	76.4	99	9	76.4	10	Snd Lv		62.9	10.5		5 5	5.5
Receiver24	24		0	0.0	6.69	99	(0	6.69	10	Snd LvI		61.4	8.5	7.	5	3.5
Receiver25	25	1	0	0.0	65.2	99	(0	65.2	10	*****	ц,	59.7	5.5		5 0	0.5
Receiver26	56	-	0	0.0	73.4	99	(0	73.4	10	Snd Lvi		62.9	10.5			5.5
Receiver27	27	_	0	0.0	69.7	99	(0	69.7	10	Snd Lvl		0.09	9.7			4.7
Receiver28	78	_	0	0.0	72.4	99	(0	72.4	10	Snd Lvl		62.1	10.3	7	5 5	5.3
Receiver29	29	1	0	0.0	65.4	99	(C)	65.4	10		9	60.2	5.2		9	0.2
Receiver30	30	1	0	0.0	71.3	99	9	71.3	10	Snd Lv		62.7	8.6		5	3.6
Receiver31	31	1	0	0.0	70.3	99	(0	70.3	10	Snd Lvl		62.0	8.3			3.3
Receiver32	32	1	0	0.0	64.0	99	(O	64.0	10	1	3	59.0	5.0	4,	5 0	0.0
Receiver33	33	1	0	0.0	70.3	99	9	70.3	10	Snd Lv		59.8	10.5	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		5.5
Receiver34	34	1	0	0.0	68.3	99	(0	68.3	10	Snd Lv		60.2	8.1	3,		3.1
Receiver61	61	1	0	0.0	63.6	99	9	63.6	10		ις,	58.1	5.5		5 0	0.5
Receiver62	62	1	0	0.0	61.4	99	9	61.4	10		9	57.8	3.6	4,	5 -1	4
Receiver63	63	1	0	0.0	8.99	œ œ	6	8.99	10	Snd Lv		61.5	5.3	,		0.3
Receiver64	64	1	0	0.0	62.6	99	(0	62.6	10		G)	58.4	4.2	,		Q 8.
Receiver65	65	1	0	0.0	9.09	99	(0	9.09	10	İ	40	56.9	3.7		5 -1	1.3
Receiver66	99	-	0	0.0	8.09	99	"	8.09	10			58.0	2.8	4,	5 -2.	2.2
Receiver67	29		0	0.0	64.5	99	10	64.5	10		9	64.5	0.0	4	5	-5.0
Receiver68	68	1	0	0.0	64.8	99		64.8	10		9	64.8	0.0		55	5.0
Receiver69	69	1	0	0.0	63.7	99	9	63.7	. 10	-	9	63.7	0.0	}	5 -5	-5.0
Receiver70	70	-	0	0.0	62.1	99	(0	62.1	10		ω	62.2	-0.1			-5.1
Receiver71	71		0	0.0	59.4	99	(0)	59.4	10		ıçı	59.0	0.4	4,	5 -4	4.6
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RESULTS: SOUND LEVELS					1-75	I-75 Noise Study	tudy				
Receiver72	72	0.0	60.1	99	60.1	10		59.4	0.7	5	4.3
Receiver73	73	0.0	63.6	99 9	63.6	10	4774	63.2	0.4	5	4.6
Dwelling Units	# DNs	# DUs Noise Reduction	duction								
		Min	Avg	Мах							
		дB	dB	dВ							•••
All Selected	25	-0.1	5.1	10.5							
All Impacted	10	5.3	9.0	10.5							
All that meet NR Goal	1	4 5.0	8.0	10.5			•				

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The Corradino Group John Bucher	•						23 Septen TNM 2.5	23 September 2014 TNM 2.5 Calculated with TNM 2.5					
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	L75 N Seg6	I-75 Noise St Seg6 - Garde	udy nia to	l-75 Noise Study Seg6 - Gardenia to 12 Mile - Walls	alls						÷	Nove e	······································
BARRIER DESIGN:	SB2							Average I	Average pavement type shall be used unless a State highway anoncy substantiates the use	shall be use	ed unless		
ATMOSPHERICS:	68 de	68 deg F, 50% RH	% RH					of a differ	of a different type with approval of FHWA	approval of F	FHWA.		
Receiver													
Name	No. #DUs	Exist	пg	No Barrier					With Barrier				
		LAeq1h	_	LAeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	ction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus	Б
		dBA	0	dBA	dBA	фВ	dB		dBA	фВ	ф	9 8	
Receiver39	39	12	0.0	71.9	99	71.9	9 10	11	66.5	5.4	-	5	0.4
Receiver40	40	2	0.0	71.5	99	3 71.5	5 10	Snd Lvl	67.0	4.5		5	-0.5
Receiver55	22	7	0.0	71.7	99	3 71.7	7 10	Snd Lvl	66.5	5.2		5	0.2
Receiver56	99	2	0.0	8'69	99	9.69.8	3 10	Snd Lvl	64.7	5.1		2	0.1
Receiver57	57	2	0.0	71.4	99	71.4	4 10	Snd Lvl	67.8	3.6		5	4.1-
Receiver58	58	2	0.0	8.69	99	8.69.8	3 10	Snd Lvl	67.4	2.4		5-	-2.6
Receiver59	29	2	0.0	72.6	99	72.6	3 10	Snd Lvl	71.5	1.1		5	9.6
Dwelling Units	# DUs		Noise Reduction	ction									
		Min		Avg	Max								
		무		dВ	qВ								
All Selected		24	7.	3.9	5.4	1							
All Impacted		24	1.1	3.9	5.4								
All that meet NR Goal		16	5.1	5.2	5.4								\neg

I-75 Noise Study

Study
Noise
1-75

The Corradino Group John Bucher								23 September 2014 TNM 2.5	mber 20	4					
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:		I-75 Noise S Seg7 - 12 M NB1&2	I-75 Noise Study Seg7 - 12 Mile to NB1&2	rtudy ile to 14 Mile - Walls	Walls			Calculated with I'vivi 2.5 Average pave	Avera	ge paven	nent type	with Third 2.5 Average pavement type shall be used unless	ssalun þá		
ATMOSPHERICS:		68 deg F, 5	F, 50% RH	Į					a Stat of a di	e nighwa fferent ty	y agency /pe with a	a State highway agency substantiates the use of a different type with approval of FHWA.	es the us: :HWA.		
Receiver				1 1											
Name	Š.	#DUs	Existing		rier					Witt	ኤ	The second remains the second description of the second se			
	·_		LAeq1h	LAeq1h Calculated	pel	Crit'n	Increase over existing	er existing Crit'n	Type		þ	Noise Reduction	ction Goal	Calculated	pet
								Sub'l Inc					<u> </u>	minus	
			dBA	dBA	쁑	dBA	фВ	ф		dBA		dB	g	dB dB	
Receiver20	20	80	O	0.0	73.2	99		73.2	10 Snd Lvl	I^	65.2	8.0		5	3.0
Receiver2	2	4	0.0	0	73.3	99		73.3	10 Snd Lvl	7	66.5	6.8		2	2 .
Receiver3	3	8	0.0	0	73.6	66			10 Snd Lvl	Lvl	67.3	6.3		5	1.3
Receiver4	4	4	0.0	0	74.6	99			10 Snd Lvl	[v]	67.1	7.5		5	2.5
Receiver5	5	4	0.0	0	74.4	99			10 Snd Lvl	LVI	0.99	8.4		2	3.4
Receiver6	9	4	0.0	0	76.0	99				<u> </u>	66.7	9.3		2	4.3
Receiver7	r 0	4 4	0.0	0	76.7	99				<u> </u>	66.5	10.2		20 1	5.2
Receivers Receivers	xo o	4 4	0.0		77.77	8 8		7777	10 Snd Lvi	<u> </u>	56.3	11.1		2 0	6.1
Receiver10	10	4	0.0	0	77.5	99				<u> </u>	66.4	11.1		2	6.1
Receiver11	1	4	0.0	0	77.0	99		77.0	10 Snd Lvl	>	66.3	10.7		2	5.7
Receiver12	12	4	0.0	0	77.4	99			10 Snd Lvl	<u>.</u> دا	66.3	11.1		2	6.1
Receiver13	13	4	0.0	0	77.4	99				5	66.2	11.2		2	6.2
Receiver14	4	4	0.0	0	78.4	99	<u>.</u>			>	66.2	12.2		22	7.2
Receiver15	15	4	0.0	0	78.2	99			ŀ	5	66.4	11.8		21	6.8
Receiver16	16	4	0.0	0	78.2	99				~~ ~	66.5	11.7		5	6.7
Receiver17	17	4	0.0	0	76.8	99				-vi	66.3	10.5		2	5.5
Receiver18	18	4	0.0	0	76.0	99				>	65.5	10.5	_	5	5.5
Receiver19	19	4	0.0	0	7.97	99				 	64.0	12.7		2	7.7
Receiver22	22	4	0.0	0	72.5	99				7	64.8	7.7		5	2.7
Receiver37	36	4	0.0	0	73.0	99	-			>	66.3	6.7		2	1.7
Receiver39	37	4	0.0	0	72.0	99].	>	6.99	5.1	-	2	0.7
Receiver41	88	80	0.0	0	72.6	99		72.6	10 Snd Lvl	>	64.6	8.0	-	2	3.0

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RESULTS: SOUND LEVELS						I-75 Noise Study				
Receiver43	39 4	0.0	71.2	99 7	71.2	10 Snd Lvl	63.4	7.8	5	2.8
Receiver45	40 4	0.0	72.4	99	72.4	10 Snd Lvl	65.5	6.9	22	1.9
Receiver47	41 4	0.0	76.2	99	76.2	10 Snd Lvl	65.4	10.8	3	5.8
Receiver49	42 4	0.0	76.4	99 1	76.4	10 Snd Lvl	65.4	11.0	5	6.0
Receiver51	43 4		75.7	99	75.7	10 Snd Lvl	64.6	11.1	S.	6.1
Receiver53	44	0.0		99 8	74.8	10 Snd Lvl	64.2	10.6	က	5.6
Receiver55	45 4	0.0	74.1	99	74.1	10 Snd Lvl	63.8	10.3	သ	5.3
Receiver57	46 4	0.0	74.5	99	74.5	10 Snd Lvl	64.1	10.4	5	5.4
Receiver59	47 4	0.0	73.4	99	73.4	10 Snd Lvl	63.5	9.9	2	4.9
Receiver61	48 4	0.0	73.4	99	73.4	10 Snd Lvl	63.5	6.6	S	4.9
Receiver63	49 4	0.0	73.6	99	73.6	10 Snd Lvl	70.3	3.3	c)	-1.7
Dwelling Units	# DUs	# DUs Noise Re	Reduction							
		Min	Avg	Max						•
		фB	dB	дB						
All Selected	148	3.3	9.5	12.7						
All Impacted	148	3.3	9.6	12.7						
All that meet NR Goal	144	5.1	9.7	12.7						

LEVELS	
RESULTS: SOUND LEVE	

I-75 Noise Study

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The Corradino Group John Bucher							23 Septe TNM 2.5	23 September 2014 TNM 2.5 Calculated with TNM 2.5	ب د ع			
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:	I-75 N Seg8 SB1	I-75 Noise St Seg8 - 14 Mil SB1	tudy Ie to Roc	I-75 Noise Study Seg8 - 14 Mile to Rochester Rd - Walls SB1	I - Walls	_		Average	pavement typi	Average pavement type shall be used unless	d unless	
ATMOSPHERICS:	68 de	68 deg <u>F,</u> 50	3% RH					a State of a diffe	ighway agenc rent type with	a State highway agency substantiates the use of a different type with approval of FHWA.	s the use HWA.	
Receiver							The state of the s					
Name	No. #DUs			No Barrier					With Barrier			
		LAeq1h		LAeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	tion	
			<u></u>	Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus
		!	!		-							Goal
		dBA	dBA	∢	dBA	dВ	gB		dBA	фВ	eg eg	dB
Receiver1	1	_	0.0	76.7	99 ,	76.7		10 Snd Lvl	63.2	13.5	5	8.5
Receiver2	2	_	0.0	76.2	99	76.2		10 Snd Lvl	63.4	12.8	5	
Receiver3	3	1	0.0	75.9	99	75.9		10 Snd Lvl	63.5	12.4	5	7.4
Receiver4	4	1	0.0	76.1	99	76.1		10 Snd Lvl	63.6	12.5	5	7.5
Receiver5	5	1	0.0	75.7	99	75.7		10 Snd Lvl	63.2	12.5	5	7.5
Receiver6	8	1	0.0	75.6		75.6		10 Snd Lvl	63.1	12.5	5	7.5
Receiver7	6	2	0.0	75.9		75.9		10 Snd Lv		12.6	5	7.6
Receiver8	10	1	0.0	75.9		75.9		10 Snd Lvl		12.7	5	7.7
Receiver9	11	1	0.0	75.9	99	75.9		10 Snd Lvl	63.2	12.7	5	7.7
Receiver10	12	1	0.0	75.8		75.8		10 Snd Lvl	63.1	12.7	5	7.7
Receiver11	15	1	0.0	75.6		75.6		10 Snd Lvl	63.0	12.6	5	7.6
Receiver12	16	_	0.0	75.4		75.4		10 Snd Lvl	62.9	12.5	5	7.5
Second Row	17 1	11	0.0	64.3	99	64.3	3 10	-	56.5	7.8	5	2.8
Receiver14	18	1	0.0	74.9	99	74.9		10 Snd Lvl	62.7	12.2	9	7.2
Receiver15	19	2	0.0	75.8	99			10 Snd Lvl	62.9	12.9	5	7.9
Receiver17	21	700	0.0	75.2	99	75.2		10 Snd Lvl	62.5	12.7	5	7.7
Dwelling Units	# DNs	\vdash	Noise Reduction	tion			-			The state of the s		
		Ē	Avg	j.	Мах	··						
		鲁	B	_	용	ī						
All Selected	7	28	7.8	12.3		I						
All Impacted		17	12.2	12.7								
All that meet NR Goal	7	28	7.8	12.3	13.5							

I-75 Noise Study

The Corradino Group						23 Septer	23 September 2014					
						Calculate	Calculated with TNM 2.5	12.5				
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 N Seg9	I-75 Noise Study Seg9 - Rocheste	I-75 Noise Study Seg9 - Rochester to Livernois - Walls	s - Walls							-	<u></u>
BARRIER DESIGN:	NB1&2	7					Average	Average pavement type shall be used unless	shall be us	ed unless		
ATMOSPHERICS:	68 deg	g F, 50% RH	RH	•			a State hi of a differ	a State highway agency substantiates the use of a different type with approval of FHWA.	y substantial approval of l	tes the us FHWA.	Φ	
Receiver												
	No. #DUs	Existing	y No Barrier					With Barrier				
		LAeq1h	LAeq1h		Increase or	Increase over existing	Type	Calculated	Noise Reduction	ction		
		**********	Calculated	d Crit'n	Calculated		Impact	LAeq1h	Calculated	Goal	Calculated	teď
						Sub'l Inc					minus Goal	
		dBA	dBA	dBA	dB	dB		dBA	dB	dB	ф	
Receiver13	13	1	7.	73.9	2 99	73.9 10	Snd Lvl	66.7	7.2		5	2.2
Receiver15	15			66.7	99	66.7 10	Snd Lvl	56.1	10.6		5	5.6
Receiver16	16		0.0	73.7	2 99	73.7 10	Snd Lvi	0.99	7.7		2	2.7
Receiver18	18		0.0	74.8	2 99	74.8 10		66.7	8.1		5	3.1
Receiver19	19		0.0			69.9 10		61.5		1	5	3.4
Receiver20	20		0.0	75.2	2 99	75.2 10	Snd Lvl	67.3	7.9	•	2	2.9
Receiver22	22		0.0	76.0	2 99	76.0 10	Snd Lvl	66.7	6.9	8	2	4.3
Receiver23	23	3 (0.0	71.8	2 99	71.8 10		63.6	8.2	-	ري ا	3.2
Receiver24	24		0.0	76.9	2 99	76.9 10	Snd Lvl	67.4	9.5	10	2	4.5
Receiver26	26		0.0	9.77	2 99	77.6 10	Snd Lvl	68.6	0.6	0	2	4.0
Receiver27	27		7. 0.0	72.0		72.0 10		64.4	7.6	"	ıÇ.	2.6
Receiver28	28	2				77.8 10		68.3		5	5	4.5
Receiver30	30			76.7	66 7	76.7. 10		67.8	8.9	9	5	3.9
Receiver31	31	0		76.8	2 99	76.8 10		68.0		8	2	3.8
Receiver33	33					76.7 10		6.89	7.8	8	5	2.8
Receiver34	34		0.0		2 29	76.7 10		68.2	8.	5	5	3.5
Receiver76	9/		0.0	76.4	2 99	76.4 10	Snd Lvl	0.69	7.4	+	5	2.4
Dwelling Units	*DO#	Noise	e Reduction		**************************************			AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA				
		Min	Avg	Max								
		фB	4B	ф	1							
All Selected	4				10.6			-				
All Impacted	7				10.6							
All that meet NR Goal	7	45	7.2	8.5 10	10.6							

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ine corraumo Group John Bucher							N F	zs september zu14 TNM 2.5	IDEF 2014				
							U	Calculated with TNM 2.5	with TN	12.5			
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	<u>'-</u> 1	5 Noise	I-75 Noise Study										
RUN: BARRIFR DESIGN:	Ω. r.	Seg9 - Ro SB1&2	chester	Seg9 - Rochester to Livernois - Walls SR1&?	s - Walls				Average	navement fun	Average navement fine chall be used infese	d unlose	
	5	3							a State h	ghway agenc	Average pavement type small be used unless a State highway agency substantiates the use	es the us	ø,
ATMOSPHERICS:	9	68 deg F,	, 50% RH						of a diffe	rent type with	of a different type with approval of FHWA	HWA.	
Receiver													
Name	No. #□	#DOS E	Existing	No Barrier						With Barrier			
			LAeq1h	LAeq1h		Incre	ē		Туре	Calculated	Noise Reduction	tion	
				Calculated	Crit'n	Calc	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							σ	Sub'l Inc					minus
			ηΒΔ	ηΒΔ	ΔB _C	ā		Ę.		ABA	a c	문	Goal
Receiver 37	27	-			i	3 8	74.0	,	by I bus	9 39	0		
Receiver38	388	1 7	0.0		2 2	3 99	73.5	9 9	Snd Lvl	66.5			5 20
Receiver39	39	9	0.0			99	68.5	10	Snd Lvi	61.1			
Receiver40	40	9	0.0	70.0		99	70.0	10	Snd Lv	60.1			
Receiver42	42	4	0.0	73.0		99	73.0	10	Snd Lvl	66.0	7.0		5 2.0
Receiver43	43	7	0.0	75.0		99	75.0	10	Snd Lvl	67.7	7.3		5 2.3
Receiver44	44	2	0.0	6.69		99	6.69	10	Snd Lvl	62.6	7.3		5 2.3
Receiver45	45	2	0.0	6.07		99	70.9	10	Snd Lvl	61.7	9.2	,	5 4.2
Receiver46	46	2	0.0			99	69.5	10	Snd Lvl	63.4	6.1		1.1
Receiver47	47	7	0.0	7.07		99	7.07	10	Snd Lvl	63.4	7.3		5 2.3
Receiver49	49	9	0.0			99	73.2	10	Snd Lvl	64.6	8.6	-	3.6
Receiver50	50	9	0.0			99	75.5	10	Snd Lvi	6.79	7.6		5 2.6
Receiver51	51	2	0.0	74.1		99	74.1	10	Snd Lvi	65.5	8.6		5 3.6
Receiver52	52	2	0.0			99	76.0	10	Snd Lví	68.8	7.2		
Receiver54	54	2	0.0	71.5		99	71.5	10	Snd Lvl	62.7	80.		5 3.8
Receiver55	55	2	0.0	71.7		99	71.7	10	Snd Lvl	63.9	7.8		5 2.8
Receiver56	56	9	0.0	69.3		99	69.3	10	Snd Lvl	61.5	7.8		5 2.8
Receiver57	22	9	0.0	70.4		99	70.4	10	Snd Lvl	62.6	7.8		5 2.8
Receiver58	58	2	0.0	71.0		99	71.0	10	Snd Lvl	62.7	8.3		3.3
Receiver59	29	2	0.0		,	99	72.2	10	Snd Lvl	64.4	7.8		5 2.8
Receiver60	90	2	0.0			99	74.3	10	Snd Lvl	65.3			5 4.0
Receiver61	61	2	0.0			99	75.9	10	Snd Lvi	68.2	7.7		5 2.7
Receiver63	63	9	0.0	74.3		99	74.3	10	Snd Lvi	64.9	9.4		5 4.4

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RESULTS: SOUND LEVELS						32-1	I-75 Noise Study	Study				
Receiver64	64	9	0.0	75.9	99	75.9	9	Snd Lvl	68.5	7.4	လ	2.4
Receiver65	65	ю	0.0	74.7	99	74.7	10	Snd Lvl	65.4	9.3	5	4.3
Receiver66	99	က	0.0	75.7	99	75.7	10	Snd Lvl	68.6	7.1	2	2.1
Receiver 68	89	ဖ	0.0	75.9	99	75.9	10	Snd Lvl	64.9	11.0	3	6.0
Receiver69	69	9	0.0	76.4	99	76.4	10	Snd Lvl	68.6	7.8	5	2.8
Receiver70	70	2	0.0	7.5.7	99	75.7	10	Snd Lvl	64.9	10.8	5	5.8
Receiver71	7.1	2	0.0	75.6	99	75.6	9	Snd Lvl	67.5	8.1	5	3.1
Receiver73	73	9	0.0	74.4	99	74.4	10	Snd Lvl	64.4	10.0	5	5.0
Receiver74	74	ဖ	0.0	76.1	99	76.1	10	Snd Lvl	67.3	8.8	2	3.8
Receiver76	76	~	0.0	74.6	99	74.6	10	Snd Lvl	64.6	10.0	သ	5.0
Receiver77	11	9	0.0	74.7	99	7.4.7	10	Snd Lvl	68.5	6.2	5	1.2
Receiver80	80	ဖ	0.0	71.4	99	71.4	10	Snd Lvl	62.8	8.6	3	3.6
Receiver82	82	9	0.0	72.0	99	72.0	10	Snd Lvl	68.4	3.6	S	-1.4
Receiver84	84	2	0.0	9.69	99	9.69	10	Snd Lvl	6.09	8.7	သ	3.7
Receiver85	85	2	0.0	70.3	99	70.3	10	Snd Lvl	64.2	6.1	5	1.1
Receiver87	87	9	0.0	62.4	99	62.4	10	1	61.1	1.3	5	-3.7
Receiver88	88	9	0.0	64.3	99	64.3	10	1	63.1	1.2	5	-3.8
Dwelling Units	*	# DUS No	Noise Reduction	 הל								
		Min	n Avg		Max							
		фB	gp qB		dВ							
All Selected		153	1.2	7.7	11.0						,	
All Impacted		141	3.6	8.0	11.0							
All that meet NR Goal		135	6.1	8.1	11.0							

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RESULTS: SOUND LEVELS PROJECT/CONTRACT: Seg10 - Livernois RUN: Seg10 - Livernois BARRIER DESIGN: SB1 ATMOSPHERICS: 68 deg F, 50% RH Receiver No. #DUS Existing Name Mo. #DUS Existing Receiver1 1 1 0.0 Receiver2 2 5 0.0 Receiver3 3 4 0.0	Se Study Livernois to Livernois to Existing N CAeq1h L CAeq1h C CAeq1h C CAeq1h C	I-75 Noise Study Seg10 - Livernois to Wattles - Walls SB1 68 deg F, 50% RH	<u> </u>		Calculate	Calculated with TNM 2.5	2.5			ing the stand
IER DESIGN: SPHERICS: ver ver2 ver3 3	Study vernois to vernois to S0% RH cisting N C C C C C C C C C C C C C C C C C C	Wattles - Wa	<u>u</u>		-					
ver No. # ver1 1 1 ver2 2 2 ver3 3			2	_		Average p	avement type	Average pavement type shall be used unless	d unless	_
ver No. #DUs ver 1 1 ver 2 5 ver 3 4	41h 0.0 0.0 0.0					a State hi	jhway agency ent type with	a State highway agency substantiates the use of a different type with approval of FHWA.	es the use :HWA.	
No. #DUs ver1 ver2 ver3 4	41h 0.0 0.0 0.0									
- 0 w	00000	No Barrier					With Barrier			
- N W	0.0 0.0	LAeq1h		Increase over existing	r existing	Type	Calculated	Noise Reduction	tion	
- 0 K	0.0	Calculated C	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
- C &	0.0				Sub'l Inc					minus Goal
2 8	0.0	dBA	dBA	dВ	ФВ		dBA	dВ	фВ	dB
3 2 3	0.0	79.7	99	7.67	7 10	Snd Lvl	75.3	4.4		5 -0.6
8	0.0	75.5	99	75.5	10	Snd LvI	65.1	10.4		5 5.4
	00	75.9	99	75.9	9 10	Snd Lvi	66.2	9.7		5 4.7
Receiver4 5	;	65.3	99	65.3	3 10	<u> </u>	58.8	6.5		5 1.5
Receiver5 5 4	0.0	73.8	99	73.8	8 10	l	66.3	7.5		5 2.5
Receiver6 7	0.0	77.2	99	77.2	10	Snd Lvl	9.99	10.6		5.6
Receiver7 6	0.0	9.77	99	77.6	6 10		67.7			6.4
Receiver8 8 3	0.0	68.1	99	68.1	101	Snd Lvl	61.1	7.0		5 2.0
Receiver9 9 4	0.0	80.1	99	80.1	10	Snd Lvl	70.9	9.2		5 4.2
Receiver10 4	0.0	82.9	99		9 10		73.2			5 4.7
Receiver12 4	0.0	82.5	99		10	Snd Lvl	0.69	13.5		3.5
Receiver13 4	0.0	76.8	99		10	Snd Lvl	66.5	10.3		5.3
	0.0	68.2	99		2 10		63.0	5.2		5 0.2
Receiver15 3	0.0	82.5	99	82.5	5 10	Snd Lvl	0.89	14.5		3.6
Receiver16 5	0.0	77.5	99	77.5	5 10	<u> </u>	61.7	15.8		10.8
Receiver17 5	0.0	75.3	99	75.3	3 10		64.6	10.7		.5.
Receiver18 4	0.0	77.2	99	77.2	2 10	Snd Lvl	0.99	11.2	5	5 6.2
Receiver19 7	0.0	82.2	99	82.2	10		71.4	10.8		5.8
Receiver 20 2 2	0.0	76.0	66	76.0	0 10	Snd Lvl	68.7	7.3		5 2.3
Dwelling Units # DUs No	Noise Reduction	ction								The second secon
Min		Avg	Max					ż		
ЯР			dВ							
All Selected 81	4.4	9.7	15.8							

All Impacted	9/	4.4	6.6	15.8
All that meet NR Goal	80	5.2	10.0	15.8

1-75 Noise Study

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S: SOUND LEVELS
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I-75 Noise

The Corradino Group John Bucher							23 Septen TNM 2.5	23 September 2014 TNM 2.5	ı			
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN:	_ 0, _	I-75 Noise Segment 11 NB1	e :11a				Calculate	Calculated with I NM 2.5 Average pave	2.5 avement type	with INM 2.5 Average pavement type shall be used unless	d unless	
ATMOSPHERICS:		68 deg F, 5l	:, 50% RH	-				a State hig of a differ	hway agency	a State highway agency substantiates the use of a different type with approval of FHWA.	es the use HWA.	
Receiver												
Name	No.	#DOS	Existing	No Barrier					With Barrier			-
	-		LAeq1h	LAeq1h	-	Increase over existing	existing	Type	Calculated	Noise Reduction	tion	
				Calculated	Crittn	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus
			dBA	dBA	dBA	æ	ф		dBA	dB	g	dB dB
Receiver52	52	-	0.0	7.89	99 /	5 68.7	10	Snd Lvl	62.5	6.2		5 1.2
Receiver53	53	-	0.0	66.3	3 66	5 66.3	10	Snd Lvi	61.2	5.1		5 0.1
Receiver54	54	1	0.0	60.1	1 66	5 60.1	10		56.9			5 -1.8
Receiver55	55	1	0.0) 10		56.7	7.3		
Receiver56	56	1	0.0						59.4	7.4		
Receiver57	22	1	0.0				3 10		62.4			5 3.4
Receiver58	58	7	0.0				10	Snd Lvl	59.0			
Receiver59	29	_	0.0					-	56.1			
Receiver60	99	_	0.0						54.4			5 1.4
Receiver61	61	1	0.0						61.4	-	-	
Receiver62	62	7	0.0				3 10	Snd Lvl	59.0			5 2.8
Receiver63	63	_	0.0				7 10		56.9			
Receiver64	64	_	0.0	71.9	9 66	3 71.9	10		61.9	10.0		5 5.0
Receiver65	92	_	0.0		99 ' 6			Snd Lvl	57.7			
Receiver66	99	_	0.0	63.7	99 /		, 10		55.7	8.0		3.0
Receiver67	29	_	0.0	70.9	99 66	3 70.9	10		64.2			5 1.7
Receiver68	68	1	0.0		99 8		3 10	Snd Lvl	59.8	6.		
Receiver69	69	_	0.0	62.7	99 /	5 62.7	, . 10		57.2	5.5		5 0.5
Dwelling Units		# DNs	Noise Re	Reduction					***************************************			
			Min	Avg	Max	1						
			фB	фВ	фВ	1						
All Selected		18	3.2			Ī ⊕						
All Impacted		7	5.1	7.9	10.4							

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RESULTS: SOUND LEVELS					
All that meet NR Goal	17	5.1	7.5	10.4	

I-75 Noise

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SOUND LE	
RESULTS: (

I-75 Noise

The Corradino Group John Bucher									23 September 2014 TNM 2.5	nber 2014					_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:		I-75 Noise Segment 11	ise nt 11a				-		Calculated with I Nivi 2.5		C:3	= - - - -]	<u>.</u>		
BARRIER DESIGN:		SB1 68 462 F E	70 %03	2			_			Average a State I	pavement ighway ag	Average pavement type snail be used unless a State highway agency substantiates the use of a different time with annowal of EUMA	be used fantiates	uniess the use		
Almodratics:		nen oo	L, 30 % F	5						OI & UIII	ieilt type v	viui appro	מו הו	7		
Receiver	N.	#DIC#	Evieting		No Barrier						With Rarrior	rior				
	<u>.</u>	}	LAeq1h		‡		Incre	Increase over existing	existing	Type	Calculated	_	Noise Reduction	uo		
			•		peq	Crit'n	Calc	Calculated	Crit'n	Impact	LAeq1h	, ,	lated G	Goal	Calculated	pej
									Sub'i Inc						minus	
			dBA	dBA		dBA	q _B		쁑		dBA	ф	99	<u> </u>	ев В	
Receiver2	2			0.0	65.7		99	65.7	10	-		63.9	1.8		5	-3.2
Receiver3	es.	2		0.0	69.0		99	69.0	10	Snd Lvl		6.9	2.1		5	-2.9
Receiver4	4			0.0	8.99		99	66.8	10	Snd Lvl		64.3	2.5		10	-2.5
Receiver5	5			0.0	69.9		99	6.69	10	Snd Lvl		67.1	2.8	-	5	-2.2
Receiver6	9			0.0	65.8		99	65.8	10			61.8	4.0		5	-1.0
Receiver7	7			0.0	68.1		99	68.1		Snd Lvl		63.6	4.5		5	-0.5
Receiver8	8			0.0	64.2	•	99	64.2	10			59.5	4.7		5	-0.3
Receiver9	တ			0.0	66.5		99	66.5		Sud Lvl		61.0	5.5		5	0.5
Receiver10	10			0.0	62.3)	99	62.3	10			58.7	3.6	-,	5	4.
Receiver11	11	2		0.0	65.8)	99	65.8	10	-		62.0	3.8		5	-1.2
Receiver12	12			0.0	63.9	•	99	63.9	10	-		59.7	4.2	-	5	-0.8
Receiver13	13			0.0	67.8	•	99	67.8	10			62.8	5.0		5	0.0
Receiver14	14			0.0	68.5)	99	68.5	10			59.3	9.5	-,	5	4.2
Receiver15	15			0.0	69.8		99	69.8	10	- !		61.4	8.4		D.	3.4
Receiver16	16			0.0	69.1		99	69.1	10			59.2	6.6		5	4.9
Receiver17	17			0.0	69.7		99	69.7	10	Snd Lvl		6.09	8.8		5	3.8
Receiver18	18			0.0	52.7		99	52.7	10]		44.5	8.2	,	5	3.2
Receiver19	19			0.0	57.9		99	57.9	10	-		49.2	8.7		5	3.7
Receiver20	20			0.0	56.4		99	56.4	10	1		47.0	9.4		5	4.4
Receiver21	21			0.0	62.3		99	62.3	10]		52.0	10.3		5	5.3
Receiver22	22			0.0	58.9)	99	58.9	10			51.2	7.7	-	2	2.7
Receiver23	23			0.0	55.4		99	55.4				55.3	0.1		22	4.9
Receiver24	24			0.0	46.4		99	46.4	10]		46.4	0.0		2	-5.0

Receiver 27	27	
Receiver28	28	
Receiver29	29	
Receiver30	30	
Receiver31	31	
Receiver32	32	
Receiver33	33	
Receiver34	34	
Receiver35	35	
Receiver36	36	
Receiver37	37	
Receiver38	38	
Receiver39	39	
Receiver40	40	
Receiver41	41	
Receiver42	42	
Receiver43	43	
Receiver44	44	
Receiver45	45	
Receiver47	47	
Receiver48	48	
Receiver49	49	
Receiver50	20	
Dwelling Units		*DO#
4 Selected		6

Receiver25	25 2	0.0		99	49.4	10	4	49.3	0.1	5	4.9
Receiver26 2	26 2	0.0			54.8	10	4	47.7	7.1	ro.	2.1
Receiver27	27 2	0.0		99	64.1	10	υ	55.0	9.1	5	4.1
Receiver28	28 2	0.0	57.3		57.3	10	4	49.4	7.9	5	2.9
Receiver29 2	29 2	0.0	66.3		66.3	10 Snd Lvl		56.1	10.2	5	5.2
Receiver30 3	30 2	0.0			62.9	10	5	54.5	11.4	5	6.4
Receiver31	31 2	0.0	68.4		68.4	10 Snd Lvl		61.6	6.8	c)	1.8
Receiver32	32 2	0.0		99	60.7	10 ·	5	56.4	4.3	5	-0.7
Receiver33	33 2	0.0	66.4		66.4	10 Snd Lvl		7.7	8.7	5	3.7
Receiver34 3	34 2	0.0			2.09	10	5	54.1	9.9	က	1.6
Receiver35 3	35 2	0.0		**************************************	67.3	10 Snd Lvl		8.09	6.5	5	1.5
Receiver36 3	36 2	0.0	64.0		64.0	10	5	56.4	7.6	5	2.6
Receiver37 3	37 2	0.0			68.5	10 Snd Lvl		1.3	7.2	5	2.2
Receiver38 3	38 2	0.0	59.8		59.8	10	2	53.9	5.9	5	0.9
Receiver39 3	39 2	0.0			64.5	10	2	57.1	7.4	ည	2.4
Receiver40 4	40 2	0.0			55.7	10	4	49.8	5.9	cs	6.0
Receiver41 4	41 2	0.0	58.5		58.5	10	5	50.4	8.1	رى د	3.1
Receiver42 4	42 2	0.0	49.8	-	49.8	10	4	46.3	3.5	2	1.5
Receiver43 4	43 2	0.0			55.3	10	4	49.7	5.6	5	9.0
Receiver44 4	44	0.0	57.8		57.8	10	5	51.9	5.9	rO.	0.9
Receiver45 4	45 2	0.0	6.09	99	6.09	10	2	54.9	6.0	r.	1.0
Receiver47 4	47 2	0.0			60.5	10	5	58.4	2.1	ည	-2.9
Receiver48 4	48 2	0.0			68.8	10 Snd Lvl		62.3	6.5	Ω.	1.5
Receiver49 4	49 2	0.0	54.5	99	54.5	10	5	52.2	2.3	22	-2.7
Receiver50 5	50 2	0.0			68.6	10 Snd Lv		61.6	7.0	5	2.0
Dwelling Units	# DUs	Noise Re	Reduction						***************************************		
		Min	Avg	Max							
		фB	фВ	фВ		·					
All Selected	96		5.9	11.4							
All Impacted	34	2.1	9.9	10.2							
All that meet NR Goal	62										

I-75 Noise

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RESULTS: SOUND LEVELS								I-75 Noise Study	Study					-
The Corradino Group John Bucher							7 ⊢ (23 Septerr TNM 2.5	23 September 2014 TNM 2.5				-	
RESULTS: SOUND LEVELS PROJECT/CONTRACT:	<u> </u>	75 N oi	I-75 Noise Study				3	aiculate	Calculated with INM 2.5	Z.5				
RUN: Barrier design:	ω z	Seg 11 NB1-3	- Wattles	Seg 11 - Wattles to Coolidge - Walls NB1-3	- Walls			-	Average	Average pavement type shall be used unless	e shall b	e used unle	s _o	
ATMOSPHERICS:	•	38 deg	68 deg F, 50% RH	<u>.</u>					a State h of a diffe	a State highway agency substantiates the use of a different type with approval of FHWA.	cy substa n approva	intiates the i	esi	
Receiver								THE PERSON NAMED IN COLUMN NAM						
Name	No.	#DUs	Existing	No Barrier						With Barrier	i. 🗀	- ALLEGO CONTRACTOR CO		
			LAeq1h	LAeq1h Calculated	Criffin	Increase over existing Calculated Crit'n	over ey	existing Crit'n	Type Impact	Calculated	Noise Redu	Noise Reduction Calculated Goal	Calci	Calculated
					,	,		Sub'i Inc		<u> </u>			minus	
			dBA	dBA	dBA	ф	7	dB		dBA	ВВ	ав	dB	
Receiver30	30	1	0.0	(9	7.5	99	67.5	10	Snd Lvl	29.	7	2.8	5	-2.2
Receiver31	31		0.0		68.9	99	68.9	10	Snd Lvl	65.4	4	3.5	r2	-1,5
Receiver32	32	1	0.0		67.3	99	67.3	10	Snd Lvl	63.1	1	4.2	5	-0.8
Receiver33	33	_	0.0		63.5	99	63.5	10	-		8	3.7	S	-1.3
Receiver34	34	_	0.0		70.0	99	70.0	10	Snd Lvl		7	4.3	2	-0.7
Receiver35	35	1	0.0		62.9	99	62.9	10	***************************************		7	5.2	5	0.2
Receiver36	36	1	0.0		70.4	99	70.4	10	Snd Lvl		4	5.0	5	0.0
Receiver38	38		0.0		71.7	99	71.7	10	Snd Lvl		9	6.1	വ	1.1
Receiver39	39		0.0		70.5	99	70.5	10	Snd Lvl		_	6.4	2	1.4
Receiver40	40	Ţ-Ţ-	0.0		62.4	99	62.4	10	**************************************		4	5.0	2	0.0
Receiver41	41		0.0		71.1	99	7.1	10	Snd Lvl		7	5.9	2	0.9
Receiver42	42		0.0		70.7	000	7.0.7	0 5	Sud LVI	64.9	7 6	D 4	n u	2 0
Receiver44	4	- 7	0.0		67.4	99	67.4	10	Snd LvI		2 2	3.0	2 0	-11
Receiver45	45	1	0.0		67.2	99	67.2	10	Snd Lvl		0	3.3	2	-1.7
Receiver46	46	1	0.0		67.2	99	67.2	10	Snd Lvl	64.3	60	2.9	5	-2.1
Receiver47	47	٦	0.0		66.1	99	66.1	10	Snd Lvl	63.5	5	2.6	သ	-2.4
Receiver49	49	_	0.0		65.8	99	65.8	10		65.1	1	0.7	5	4.3
Receiver50	20		0.0		65.0	99	65.0	10		64.3	က	2.0	co.	4 6.
Receiver51	51	١	0.0		64.6	99	64.6	10	-	64.1	-	0.5	2	4.5
Receiver52	52	1	0.0		65.2	99	65.2	10	1	64.8	80	0.4	2	4.6
Receiver53	53		0.0		65.6	99	65.6	10	1	65.1		0.5	2	4.5
Receiver54	54	-	0.0		64.3	99	64.3	10	-	63.9	0	0.4	ව	4.6

RESULTS: SOUND LEVELS					1-7	1-75 Noise Study	Study	
Receiver55	55	0.0	62.7	99	62.7	10		62.7
Firefighter Park	92 4	0.0	69.3	99	69.3	10	Snd Lvl	63.8
Firefighter Park	93 4	0.0	69.2	99	69.2	10	Snd Lvl	63.5
Firefighter Park	94	0.0	70.1	99	70.1	10	Snd Lvl	63.8
Firefighter Park	95 4	0.0	70.8	99	70.8	10	Snd Lvl	63.7
Firefighter Park	96 4	0.0	71.6	99	71.6	10	Snd Lvl	64.4
Firefighter Park	97 4	0.0	72.1	99	72.1	10	Snd Lvl	64.9
Firefighter Park	98 4	0.0	72.2	99	72.2	10	Snd Lvl	65.1
Firefighter Park	99	0.0	72.1	99	72.1	10	Snd Lvl	65.1
Firefighter Park	100	0.0	. 66.7	99	2.99	10	Snd Lvl	61.7
Dwelling Units	# DUs	# DUs Noise Reduction	duction					
		Min	Avg	Мах				
		a B	ВВ	дB				
All Selected	09	0.0	4.2	7.2				
All Impacted	90	2.6	5.2	7.2				
All that meet NR Goal	40	5.0	6.1	7.2				

-5.0 0.5 2.2 2.2 2.1 2.0 0.0 0.0

0.0 5.5 5.7 7.1 7.2 7.2 7.2

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RESULTS: S

I-75 Noise Study

The Corradino Group								23 September 2014	ıber 2014					
John Bucher								TNM 2.5 Calculate	TNM 2.5 Calculated with TNM 2.5	2.5			_	
RESULTS: SOUND LEVELS PROJECT/CONTRACT:		75 Noi	I-75 Noise Study											·
RUN: BARRIFR DESIGN:	vs v	Seg 11 -	- Wattles	Seg 11 - Wattles to Coolidge - Walls SB1.4	- Walls				Average	avement fyn	Average navernent type shall he used unless	sojun þ		
	•	<u> </u>							a State hie	ghway agenc	a State highway agency substantiates the use	es the us	ø.	-
ATMOSPHERICS:	9	68 deg F,	F, 50% RH	T			***************************************		of a differ	of a different type with	approval of FHWA	HWA.		
Receiver			;											
Name	* .o	#DNs	Existing	No Barrier						With Barrier				
			LAeq1h	L'Aeq1h	1	<u>= (</u>	Increase over existing	existing	Type	Calculated	Noise Reduction	ction	2	10.40
				Calculater		5	Calculated	Sub'l Inc	III paci	II hav			minus	ulateu
													Goal	: _
			dBA	dBA	dBA	쁑	m	dB		dBA	dB	dB	ф	
Receiver1	-	1	0.0		65.0	99	65.0	10		61.7	3.3		2	-1.7
Receiver2	2	-	0.0	***************************************	67.8	99	67.8	10	Snd Lví	63.5	4.3		υ Ω	-0.7
Receiver3	က	_	0.0		69.3	99	69.3	10	Snd Lvi	62.7		10	5	1.6
Receiver4	4	1	0.0		69.2	99	69.2	10		62.5	6.7		5	1.7
Receiver5	5	. 1	0.0		0.69	99	0.69	10		62.1			2	1.9
Receiver6	9	Ψ-	0.0		. 9.69	99	9.69			62.2			C)	2.4
Receiver7	7		0.0		9.69	99	9.69			62.3			2	2.3
Receiver8	ω		0.0		69.8	99	69.8			62.6			22	2.2
Receiver9	6	_	0.0		9.6	99	9.69			62.8			2	1.8
Receiver10	10	_	0.0		2.69	99	69.7			63.1			rD.	1.6
Receiver11	11	_	0.0		70.4	99	70.4	10		63.6			LO.	1.8
Receiver12	12	_	0.0		70.7	99	70.7			64.2			ည	1.5
Receiver13	13	_	0.0		71.2	99	71.2	10	Snd Lvl	64.8			ည	1.4
Receiver14	14	1	0.0		72.4	99	72.4	10		65.8			2	1.6
Receiver15	15	1	0.0		73.4	99	73.4	10		66.1			ಟ	2.3
Receiver16	16	1	0.0		74.6	99	74.6	10		67.1			ις.	2.5
Receiver17	17	1	0.0		75.8	99	75.8	10		65.3	10.5		5	5.5
Receiver18	18	1	0.0		76.0	99	76.0			62.9			ري ا	5.1
Receiver19	19	1	0.0		76.0	99	76.0	10		65.6	~		S.	5.4
Receiver20	20	_	0.0		75.9	99	75.9			66.4			Ω.	4.5
Receiver21	21		0.0		75.1	99	75.1		- 1	66.2			Ω.	3.9
Receiver22	22	7	0.0		75.5	99	75.5			66.5			S.	4.0
Receiver23	23	_	0.0		3.9	99	73.9	10	Snd Lvl	65.2	8.7		22	3.7

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RESULTS: SOUND LEVELS	-	-			_	I-75 Noise Study	Study				
Receiver24	24	0.0			73.9	10	Snd Lvl	64.7	9.2	5	4.2
Receiver25	. 25	0.0	70.3	3 66	70.	10	Snd Lví	64.5	5.8	ۍ.	0.8
Receiver26	. 56	0.0				10	Snd Lví	60.5	7.7	5	2.7
Receiver27	27	0.0				10		60.0	5.6	Ş	9.0
Receiver28	. 28	0.0				10		56.5	7.0	5	2.0
Receiver57	25	8 0.0				10	Snd Lvi	61.9	9.2	5	4.2
Receiver58	58	9.0				10	Snd Lvi	61.2	13.8	5	8.8
Receiver59	29	8 0.0				10		61.5	15.0	2	10.0
Receiver60	09	6 0.0				10	Snd Lv!	59.9	6.7	ഹ	2.9
Receiver61	61	4 0.0				10	Snd Lvl	9.09	7.3	2	2.3
Receiver62	62	4 0.0			64.2	9		54.2	10.0	5	5.0
Receiver63	63	4 0.0				10	14 No. 16	57.7	4.6	5	-0.4
Receiver64	64	4 0.0				19	***************************************	56.8	2.0	£	-3.0
Receiver65	65	4 0.0				10		58.0	2.4	5	-2.6
Receiver66	, 99	4 0.0				10	1	58.3	3.9	5	-1.1
Receiver67	, 29	4 0.0			-	10	ώ	60.5	5.9	5	6.0
Receiver68	68	4 0.0				10	Snd Lvl	61.0	12.2	ıç.	7.2
Receiver69	69	4 0.0				10	Snd Lvi	61.1	14.5	ည	9.5
Receiver70	, 02	4 0.0				10	Snd Lvi	61.8	15.0	S	10.0
Receiver71	71	4 0.0				10		62.1	13.3	S	8.3
Receiver72	72	4 0.0				19	Snd Lvi	59.5	6.9	5	1.9
Receiver73	73	4 0.0				10		. 54.0	3.2	5	-1.8
Receiver74	74	4 0.0				10		49.7	5.1	5	0.1
Receiver75	75	4 0.0				10	-	51.6	2.4	5	-2.6
Receiver76	, 9/	4 0.0				10	mailmont of the	51.6	3.3	S)	-1.7
Receiver77	, 11	4 0.0				10	-	58.3	1.5	5	-3.5
Receiver87	87	4 0.0				10		56.3	6.9	G	1.9
Receiver89						10	Snd Lvl	57.8	8.9	5	3.9
Receiver90	06	3 0.0			67.5	10	Snd Lvl	6.09	9.9	5	1.6
Dwelling Units	# DUs	Noise	Reduction							ANTERNATIONAL SALVANTITION IN CAST SALVANTITION OF SALVANTITIO	
		Min	Avg	Мах	,						
The state of the s		dВ	dB	B							
All Selected	134										
All Impacted	87	7 4.3	8.6								
All that meet NR Goal	100		89	15.0							

·						0 00	1.00					
The Corradino Group						za septe	23 September 2014					
John Bucher				•		TNM 2.5					_	••••
RESULTS: SOUND EVELS						Calculat	Calculated With I'NIV 2.5	C'7			_	
PROJECT/CONTRACT:	I-75 No	I-75 Noise Study										
RUN:	Seg12	- Coolidge	Seg12 - Coolidge to Adams - Build	nild								
BARRIER DESIGN:	NB1&2						Average	Average pavement type shall be used unless	e shall be	nsed unle	SS	
							a State h	a State highway agency substantiates the use	y substan	tiates the	nse	
ATMOSPHERICS:	99 de	68 deg F, 50% RH					of a diffe	of a different type with approval of FHWA.	approval	of FHWA.		
Receiver	***************************************								-			
Name	No. #DUs	Existing	No Barrier					With Barrier				
		LAeq1h	LAeq1h		Increase over existing	existing	Type	Calculated	Noise Reduction	duction		
			Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	1	LAeq1h	Calculated	Goal Goal	Calcul	Calculated minus
											Goal	
		dBA	dBA	dBA	dВ	dB		dBA	фB	фB	dB	
Receiver7		0.0	69.3		69 99	69.3	10 Snd Lvl	0.69		0.3	5	-4.7
Receiver8	89	1 0.0	73.7		66 73	73.7	10 Snd Lvl	71.8	m	9.1	ည	-3.1
Receiver10	. 10	0.0	69.2		66 69.2		10 Snd Lvl	62.4		6.8	2	1.8
Receiver11	. 11	0.0	6.69		99	69.9	10 Snd Lvl	63.8		6.1	υ Ω	<u>, </u>
Receiver12	12	1 0.0	71.7		66 71	7.1.7	10 Snd Lvl	64.5	10	7.2	2	2.2
Receiver13	. 13	1 0.0	6.69		99	69.9	10 Snd Lvl	64.3	8	5.6	2	9.0
Receiver14	14	1 0.0	68.5		99 99	68.5	10 Snd Lvl	64.6	9	3.9	2	-1.1
Receiver15	. 15	0.0	67.4		66 67	67.4	10 Snd Lvl	63.9	6	3.5	2	-1.5
Receiver16	16	1 0.0			66 67.2		10 Snd Lvl	63.7		3.5	2	-1.5
Receiver17	17 1	0.0	66.2		99 99	66.2	10 Snd Lvl	62.3	3	3.9	2	-1.1
Dwelling Units	# DUs	Noise	Reduction									
		Min	Avg	Max								
		ф	ab	Вb								
All Selected	10	0.3	4.3	:	7.2							
All Impacted	10	0.3	4.3		7.2							
All that meet NR Goal		4 5.6	6.4		7.2							

1-75 Noise Study

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The Corradino Group							23 Septer	23 September 2014				
							Calculate	Calculated with TNM 2.5	12.5			
RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN:	I-75 Seg1	I-75 Noise Study Seg12 - Coolidge	dy dge to A	I-75 Noise Study Seg12 - Coolidge to Adams - Build	Plin							-
BARRIER DESIGN:	SB1&2	73	1					Average	Average pavement type shall be used unless	e shall be use	ed unless	
ATMOSPHERICS:	68 d	68 deg F, 50%	3% RH					of a diffe	of a different type with	approval of FHWA	FHWA.	ָנ נ
Receiver										Avrance on the commence of the		
Name	No. #DUs	Existing		No Barrier	-				With Barrier		-	
		LAeq1h		LAeq1h		Increase over existing	existing	Type	Calculated	Noise Reduction	ction	
			ខ្ល	Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
	,						Sub'l Inc					minus
		dBA	dBA		dBA	фВ	ф		dBA	dВ	фВ	dB
Receiver37	37	1	0.0	63.9	99	5 63.	9 10		60.3	6.	9	5 -1.4
Receiver38	38	-	0.0	64.8	99	64.8	10	1	59.8	5.0		5 0.0
Receiver39	39	-	0.0	65.3	99	5 65.3	.3 10	-	59.2	6.1		1.1
Receiver40	40	_	0.0	67.4	99	5 67.4	10	Snd Lvl	58.7	8.7		5 3.7
Receiver41	41	7	0.0	65.0			.0 10	-	59.2		3	
Receiver42	42	_	0.0	59.1	99		.1 10]	53.9	5.2	2	5 0.2
Receiver43	43	1	0.0	56.7	99	5 56.7	.7 10	(54.8	1.9	6	5 -3.1
Receiver44	44	1	0.0	57.1				(54.5		9	1
Receiver45	45	٧	0.0	56.0				- 1	50.4		0	
Receiver46	46	4	0.0	72.0	66		.0 10	Snd Lvl	63.3	8.7		5 3.7
Receiver47	47	7	0.0	72.5		3 72.5	.5 10		63.2	9.3	3	
Receiver48	48	1	0.0	71.7				ļ	61.7	_		5 5.0
Receiver49	49		0.0	69.4	99	5 69.4	.4 10	Snd Lvl	60.1			5 4.3
Receiver50	50	1	0.0	63.2			.2 10	(56.1		1	5 2.1
Receiver51	51	1	0.0	61.9	66		01 10	-	54.9	7.0	0	5 2.0
Receiver52	52	1	0.0	70.7		-	.7 10		60.8	9.9	0	
Receiver53	53	1	0.0	9.99	99		.6 10	Snd Lvl	58.4	8.2	5	5 3.2
Receiver54	54	_	0.0	67.2	66	5 67.2	.2 10	Snd Lvi	62.3	4.9	6	,
Receiver55	55	1	0.0	75.9	66	3 75.9	.9 10			8.3	3	
Receiver56	56	1	0.0	68.1	99	5 68.1	.1 10	Snd Lvl	6.99	1.2	7	5 -3.8
Dwelling Units	# DNs	ls Noise	Reduction	ion					THE THE THE THE THE THE THE THE THE THE	ATTACABLE OF COMMENTER OF THE STATE OF THE S	***************************************	AND THE PROPERTY AND TH
		Mín	Avg	5	Max							
		쁑	æ		쁑							

I-75 Noise Study

KESULIS: SOUND LEVELS				
All Selected	20	1.2	6.4	10.0
All Impacted	10	1.2	7.8	10.0
All that meet NR Goal	15	5.0	7.6	10.0

APPENDIX H LOCATION, HEIGHT, AND COST FOR FEASIBLE AND REASONABLE NOISE BARRIERS (for design)

These files support design by providing specific data about walls locations with geographic coordinates.

Segment 1 NB1

	X	Υ	Z	Height	Cost
point921	13466665.0	348593.9	632	14	\$93,180
point923	13466657.0	348741.6	632	14	\$127,920
point929	13466633.0	348943.2	631	16	\$117,929
point 930	3466616.0	349106.1	630	16	
				Total:	\$339.029

Segment 1 NB2

ocginent i	NDZ				
	X	Υ	Z	Height	Cost
point974	13466537.0	350384.8	634	0	\$0
point975	13466567.0	350265.7	633	0	\$0
point976	13466584.0	350134.0	632	14	\$63,452
point977	13466596.0	350034.0	632	14	\$68,283
point891	13466599.0	349925.6	632	14	\$94,477
point933	13466607.0	349775.9	632	14	\$94,477
point934	13466615.0	349626.1	632	14	\$94,477
point935	13466623.0	349476.4	632	12	\$80,980
point936	13466631.0	349326.6	632	8	\$53,987
point892	13466639.0	349176.9	632	8	\$35,233
point893	13466650.0	349079.6	632	8	
	_		•	Total:	\$585,366

Segment 2 NB1

	X	Υ	Z	Height	Cost
point272	13465330.0	351840.1	632	14	\$69,395
point215	13465430.0	351793.9	632	14	\$110,870
point216	13465578.0	351698.7	632	16	\$106,063
point217	13465701.0	351617.7	632	14	\$66,087
point281	13465782.0	351551.0	632	12	\$47,369
point282	13465847.0	351492.1	632	10	\$35,722
point283	13465904.0	351436.8	632	10	\$36,374
point284	13465963.0	351381.6	632	10	\$32,375
point285	13466015.0	351331.9	632	10	\$31,139
point286	13466059.0	351278.5	632	10	\$50,744
point287	13466129.0	351190.1	632	10	\$36,283
point290	13466178.0	351126.0	632	10	\$101,978
point253	13466305.0	350938.3	632	10	\$79,158
point254	13466388.0	350783.2	632	10	\$40,160
point255	13466423.0	350701.2	632	10	
				Total:	\$843,717

Segment 2 NB2

Χ	Υ	Z	Height	Cost
13464416.0	352144.6	632	10	\$46,202
13464512.0	352108.2	632	14	\$329,274
13465012.0	351955.9	632	12	\$37,216
13465078.0	351936.1	632	12	\$146,045
13465310.0	351797.1	632	12	
_			Total:	\$558,737
	13464416.0 13464512.0 13465012.0 13465078.0	13464416.0 352144.6 13464512.0 352108.2 13465012.0 351955.9 13465078.0 351936.1	13464416.0 352144.6 632 13464512.0 352108.2 632 13465012.0 351955.9 632 13465078.0 351936.1 632	13464416.0 352144.6 632 10 13464512.0 352108.2 632 14 13465012.0 351955.9 632 12 13465078.0 351936.1 632 12 13465310.0 351797.1 632 12

Segment 2 SB1

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	X	Υ	Z	Height	Cost
point261	13465128.0	351678.0	632	8	\$15,249
point262	13465167.0	351661.4	632	8	\$78,047
point263	13465363.0	351568.8	632	10	\$111,194
point264	13465565.0	351426.5	632	12	\$138,190
point265	13465763.0	351264.3	632	10	\$116,465
point266	13465929.0	351065.8	632	12	\$105,494
point267	13466038.0	350903.7	632	10	\$56,880
point268	13466107.0	350797.8	632	12	\$56,787
point269	13466150.0	350701.8	632	8	\$30,558
point270	13466180.0	350622.4	632	8	\$17,760
point271	13466197.0	350576.1	632	8	
				Total:	\$726.624

Segment 3 NB1

	X	Υ	Z	Height	Cost
point281	13462733.0	355522.1	632	14	\$167,888
point282	13462822.0	355270.9	632	16	\$194,870
point283	13462899.0	355011.5	633	20	\$249,798
point284	13462972.0	354743.7	632	18	\$249,753
point285	13463075.0	354453.1	632	16	\$143,028
point286	13463148.0	354268.3	632	16	
			•	Total:	\$1,005,337

Segment 3 SB1

X	Υ	Z	Height	Cost
13462953.0	354266.4	632	14	\$132,974
13462894.0	354469.0	632	14	\$147,268
13462824.0	354692.1	632	14	\$94,287
13462774.0	354833.1	632	14	\$121,282
13462698.0	355010.0	633	12	\$66,680
13462648.0	355122.9	633		
			Total:	\$562,491
	13462953.0 13462894.0 13462824.0 13462774.0 13462698.0	13462953.0 354266.4 13462894.0 354469.0 13462824.0 354692.1 13462774.0 354833.1 13462698.0 355010.0	13462953.0 354266.4 632 13462894.0 354469.0 632 13462824.0 354692.1 632 13462774.0 354833.1 632 13462698.0 355010.0 633	13462953.0 354266.4 632 14 13462894.0 354469.0 632 14 13462824.0 354692.1 632 14 13462774.0 354833.1 632 14 13462698.0 355010.0 633 12 13462648.0 355122.9 633

Segment 4 NB1

	X	Υ	Z	Height	Cost
point126	13462448.0	356443.9	633	16	\$105,055
point127	13462486.0	356303.1	632	14	\$156,103
point128	13462547.0	356062.9	632	16	\$200,642
point129	13462620.0	355794.0	633	14	\$89,969
point130	13462668.0	355659.5	633	14	
				Total:	\$551,769

Segment 4 SB2

0090					
	X	Υ	Z	Height	Cost
point303	13462049.0	357077.7	635	12	\$56,215
point304	13462081.0	356978.6	635	14	\$67,521
point305	13462114.0	356876.6	635	16	\$94,205
point306	13462151.0	356751.1	634	14	\$75,166
point307	13462187.0	356637.4	634	16	\$95,525
point308	13462227.0	356510.9	634	16	\$126,178
point309	13462284.0	356345.2	634	14	\$63,755
point310	13462309.0	356247.1	634	14	\$59,839
point311	13462332.0	356154.9	634	14	\$87,153
point312	13462365.0	356020.6	634	14	\$73,837
point313	13462389.0	355905.9	634	12	\$82,561
point314	13462423.0	355756.8	633	8	\$43,511
point315	13462446.0	355638.2	633	8	
				Total:	\$925,466

Segment 5 NB5

	X	Υ	Z	Height	Cost
point1450	13461361.0	361147.1	634	10	\$15,263
point1452	13461368.0	361113.9	633	10	\$56,290
point1453	13461398.0	360992.4	633	10	\$17,978
point1455	13461409.0	360954.0	634	10	\$30,866
point1456	13461428.0	360888.1	634	10	
				Total:	\$120,397

Segment 5 NB6

	Х	Υ	Z	Height	Cost
point1417	13460913.0	362624.2	635	16	\$45,167
point1419	13460931.0	362564.1	635	16	\$72,330
point1421	13460961.0	362468.2	635	16	\$73,470
point1423	13460992.0	362371.0	635	16	\$61,787
point1425	13461018.0	362289.2	635	16	\$83,971
point1427	13461053.0	362178.0	635	16	\$57,233
point1429	13461077.0	362102.2	635	16	\$62,237
point1431	13461103.0	362019.8	635	16	\$50,581
point1432	13461121.0	361951.8	634	16	\$49,869
point1433	13461141.0	361885.5	634	16	\$85,157
point1435	13461175.0	361772.2	632	16	\$68,659
point1406	13461204.0	361681.4	630	16	\$62,341
point1408	13461225.0	361597.4	628	16	\$61,065
point1410	13461244.0	361514.8	624	16	\$70,623
point1412	13461265.0	361418.9	622	16	\$63,501
point1414	13461284.0	361332.8	619	16	\$59,745
point1416	13461301.0	361251.6	616	16	
				Total:	\$1,027,736

Segment 5 NB7

	X	Υ	Z	Height	Cost	
point1437	13460808.0	363284.1	636	16	\$76,743	
point1438	13460836.0	363181.2	636	16	\$38,285	
point1439	13460845.0	363128.8	636	16	\$55,803	
point1440	13460858.0	363052.4	635	16	\$71,295	
point1441	13460883.0	362956.6	635	16	\$78,090	
point1442	13460911.0	362851.8	635	16	\$81,615	
point1443	13460941.0	362742.5	635	16	\$64,116	
point1444	13460966.0	362657.1	635	16	\$44,706	
point1445	13460983.0	362597.3	635	16	\$53,346	
point1446	13461005.0	362526.6	635	16	\$54,035	
point1447	13461028.0	362455.2	635	16		
	•		•	Total:	\$618,034	

Segment 5a NB2

Segment	Ja NDZ				
	X	Υ	Z	Height	Cost
point848	13460442.0	364951.3	636	14	\$8,840
point849	13460442.0	364965.4	636	14	\$33,469
point850	13460442.0	365018.5	636	14	\$37,250
point851	13460440.0	365077.6	636	14	\$34,545
point852	13460436.0	365132.3	636	14	\$30,279
point853	13460433.0	365180.2	636	14	\$24,032
point854	13460431.0	365218.3	636	14	\$31,950
point855	13460428.0	365269.0	636	14	\$31,110
point856	13460424.0	365318.2	636	14	\$31,065
point857	13460421.0	365367.4	636	14	\$36,509
point858	13460417.0	365425.2	636	14	\$29,651
point859	13460414.0	365472.2	636	14	\$26,923
point860	13460412.0	365514.9	636	14	\$25,114
point861	13460409.0	365554.6	636	16	\$25,360
point862	13460406.0	365589.7	636	16	\$29,426
point863	13460401.0	365630.3	636	16	\$16,633
point864	13460398.0	365653.2	636	16	\$18,149
point865	13460397.0	365678.4	636	16	\$24,747
point866	13460395.0	365712.7	636	16	\$35,962
point925	13460394.0	365762.6	636	14	\$144,547
point926	13460382.0	365991.8	635	14	\$121,512
point927	13460371.0	366184.3	635	14	
				Total:	\$797,073

Segment 6 SB1

	Х	Υ	Z	Height	Cost
point274	13460557.0	369245.9	636	0	\$0
point275	13460587.0	369426.4	633	20	\$140,548
point179	13460614.0	369580.2	632	20	\$68,691
point187	13460631.0	369654.6	632	20	\$104,739
point180	13460655.0	369768.5	632	20	\$185,983
point181	13460698.0	369970.6	633	16	\$70,782
point182	13460692.0	370068.8	633	16	
				Total:	\$570,743

Segment 7 NB1

	X	Υ	Z	Height	Cost			
point141	13460733.0	374200.4	648	10	\$411,132			
point142	13460706.0	374852.5	642	10				
				Total:	\$411,132			

Segment 7 NB2

	X	Υ	Z	Height	Cost
point137	13460764.0	374815.9	640	10	\$1,259,803
point138	13460677.0	376563.5	640	10	\$795,606
point139	13460623.0	377667.2	640	10	\$328,028
point140	13460655.0	378121.6	640	10	
				Total:	\$2,383,437

Segment 8 SB1

	X	Υ	Z	Height	Cost	
point144	13459477.0	387481.2	642	14	\$137,350	
point145	13459593.0	387296.7	642	14	\$47,764	
point146	13459633.0	387232.2	642	14	\$117,341	
point147	13459721.0	387068.1	642	14	\$137,869	
point148	13459797.0	386862.9	642	14	\$153,771	
point149	13459871.0	386630.3	642	14	\$119,049	
point150	13459904.0	386444.2	642	14	\$57,557	
point151	13459918.0	386353.9	642	14		
				Total:	\$770,701	

Segment 9 NB1

	X	Υ	Z	Height	Cost
point415	13455696.0	388611.0	671	8	\$42,480
point416	13455814.0	388611.0	671	10	\$190,555
point417	13456237.0	388630.6	677	12	\$82,123
point418	13456389.0	388635.5	677	10	\$79,772
point419	13456566.0	388645.3	678	10	
				Total:	\$394,930

Segment 9 NB2

ocginent 5 NB2							
	X	Υ	Z	Height	Cost		
point385	13453995.0	388576.6	670	10	\$285,990		
point386	13454630.0	388602.7	666	12	\$260,047		
point387	13455111.0	388626.1	666	12	\$188,795		
point388	13455460.0	388646.9	665	14	\$196,731		
point389	13455772.0	388659.9	664	14			
				Total:	\$931,563		

Segment 9 SB1

	X	Υ	Z	Height	Cost
point410	13453161.0	388286.7	677	10	\$35,100
point411	13453083.0	388286.7	677	12	\$109,209
point412	13452881.0	388276.8	679	14	\$142,414
point413	13452655.0	388271.9	684	12	\$71,477
point414	13452523.0	388262.1	685	12	
				Total:	\$358,200

Segment 9 SB2

Segment 9 SB2							
	X	Υ	Z	Height	Cost		
point395	13455857.0	387961.0	663	16	\$83,162		
point396	13455752.0	388009.1	663	16	\$89,827		
point397	13455645.0	388073.3	663	16	\$229,437		
point398	13455364.0	388223.6	665	16	\$145,034		
point399	13455174.0	388290.5	666	16	\$75,720		
point400	13455070.0	388306.1	667	16	\$93,899		
point401	13454940.0	388316.5	667	16	\$174,240		
point402	13454698.0	388316.5	667	16	\$159,296		
point403	13454477.0	388306.1	667	16	\$159,296		
point404	13454256.0	388295.7	667	16	\$174,401		
point405	13454014.0	388285.3	669	16	\$170,898		
point406	13453777.0	388272.2	671	16	\$149,947		
point407	13453569.0	388261.8	671	16	\$168,740		
point408	13453335.0	388248.8	670	16	\$183,838		
point409	13453080.0	388235.8	668	16			
				Total:	\$2,057,735		

Segment 10 SB1

oogon to obtain							
	X	Υ	Z	Height	Cost		
point315	13448425.0	394695.5	712	14	\$210,769		
point317	13448390.0	394362.8	712	8	\$103,438		
point319	13448393.0	394075.5	711	8	\$64,253		
point320	13448395.0	393897.0	711	10	\$153,974		
point323	13448420.0	393555.8	708	10	\$128,904		
point326	13448429.0	393269.4	708	16	\$222,409		
point329	13448425.0	392960.6	714	16	\$162,045		
point332	13448440.0	392736.0	709	12	\$113,348		
point334	13448445.0	392526.2	710	8	\$59,039		
point335	13448454.0	392362.4	707	8	\$61,510		
point336	13448463.0	392191.8	705	10	\$111,101		
point337	13448473.0	391945.1	703	10			
				Total:	\$1,390,790		

Segment 11a NB1

	X	Υ	Z	Height	Cost
point309	13448649.0	394857.5	707	8	\$47,378
point310	13448655.0	394988.9	708	8	\$43,776
point300	13448672.0	395109.3	710	8	\$131,275
point301	13448691.0	395473.5	709	14	\$158,421
point302	13448704.0	395724.6	709	14	\$152,275
point303	13448707.0	395966.3	710	14	\$112,907
point304	13448697.0	396145.2	711	8	\$105,103
point305	13448700.0	396437.2	712	0	\$0
point307	13448697.0	396710.2	714	0	\$0
point308	13448688.0	396986.0	716	0	
				Total:	\$751,135

Segment 11a SB1

	X	Υ	Z	Height	Cost
point294	13448523.0	396044.9	712	18	\$252,725
point295	13448534.0	395733.1	711	18	\$244,110
point296	13448530.0	395431.8	710	18	\$219,012
point297	13448515.0	395161.8	710	18	\$160,428
point298	13448492.0	394965.1	710	18	\$101,864
point299	13448499.0	394839.5	710	18	
	_			Total:	\$978,139

Segment 11 SB1

	X	Υ	Z	Height	Cost	
point357	13441829.0	404848.7	810	14	\$95,278	
point358	13441678.0	404840.2	815	14	\$128,086	
point359	13441475.0	404829.0	821	14	\$119,173	
point360	13441286.0	404821.1	824	14	\$133,680	
point361	13441074.0	404812.1	828	14	\$109,120	
point362	13440901.0	404803.7	831	14	\$147,590	
point363	13440667.0	404792.4	834	14	\$113,542	
point364	13440487.0	404783.4	838	14		
				Total:	\$846,469	

Segment 11 SB2

	X	Υ	Z	Height	Cost
point365	13441762.0	404772.2	802	16	\$166,537
point366	13441993.0	404784.0	801	14	\$175,232
point367	13442271.0	404793.0	799	12	\$159,914
point368	13442567.0	404802.0	795	12	
	_			Total:	\$501,683

Segment 11 SB3

	Х	Υ	Z	Height	Cost
point344	13444699.0	404909.2	821	16	\$385,582
point345	13444164.0	404885.4	821	14	\$294,053
point346	13443698.0	404858.9	815	14	\$265,487
point347	13443277.0	404840.4	812	16	\$340,182
point348	13442805.0	404819.2	789	16	
	_	_		Total:	\$1,285,304

Segment 11 SB4

cogment in co-					
	X	Υ	Z	Height	Cost
point387	13442932.0	404890.4	805	16	\$61,213
point388	13442847.0	404888.7	805	16	\$114,643
point389	13442688.0	404880.2	805	16	\$105,209
point390	13442542.0	404874.2	805	16	\$96,639
point391	13442408.0	404866.5	805	16	
				Total:	\$377,704